Randolph, Clifton

From: Eric Mirabel [emirabel@bioarrays.com]
Sent: Tuesday, August 30, 2005 3:24 PM
To: Randolph, Clifton
Subject: FW: PARSE-C2; 09/768,414; filed 1/24/2005

Dear Mr. Randolph:

Attached are an updated and corrected set of drawings for this matter, including all those required to be corrected in your Notice of 7/11/2005. I am also mailing them regular mail to complete the record. Thank you for your help in trying to help me find the Mail Stop for you. All the best

Eric Mirabel
Vice President of Intellectual Property
Bioarray Solutions, Ltd.
(908) 226-8200 (ext 203)
Fax: (908) 226-0800
35 Technology Drive
Warren NJ 07059

The information contained in and transmitted with this e-mail is confidential and is intended only for the individual(s) or entity(ies) designated above. If you have received this in error, please permanently delete it, and do not disseminate, copy or use it and please notify me at the number or email address above.

FIG. 1a

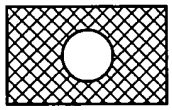


FIG. 1b

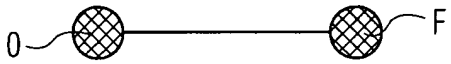


FIG. 1c

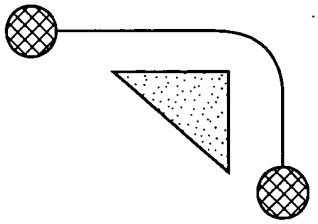


FIG. 1d

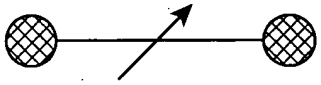


FIG. 1e

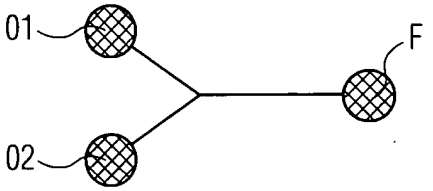


FIG. 1f

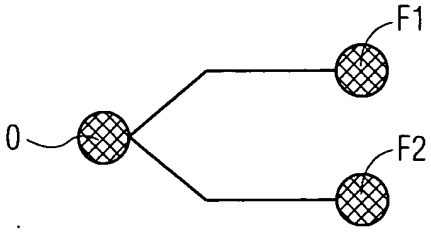


FIG. 1g

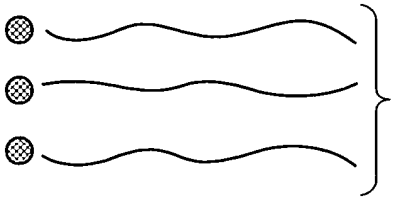


FIG. 1h

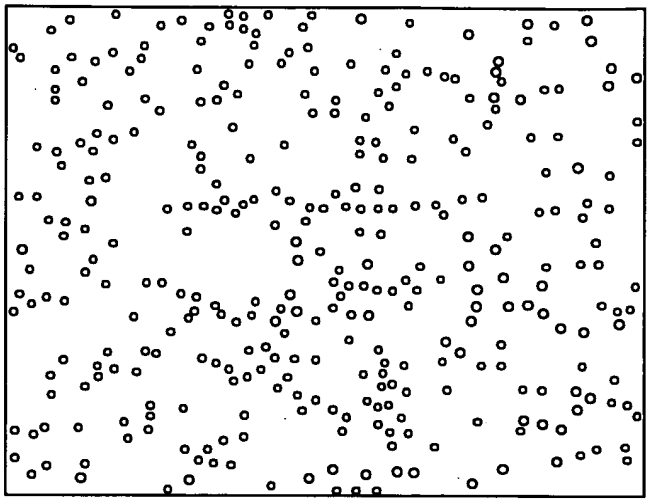


FIG. 2A

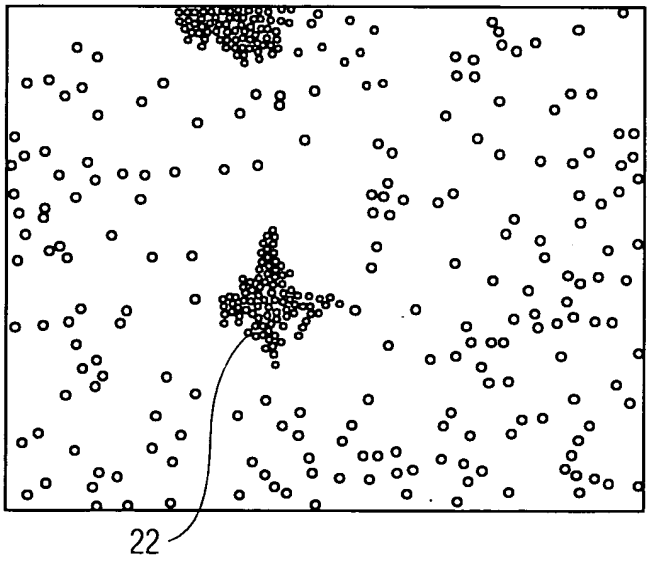


FIG. 2B

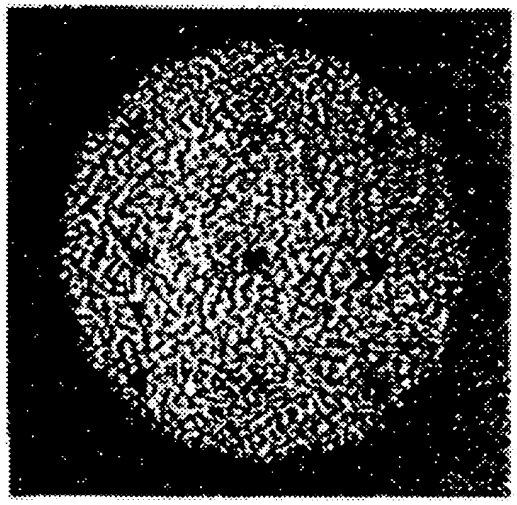


FIG. 2C

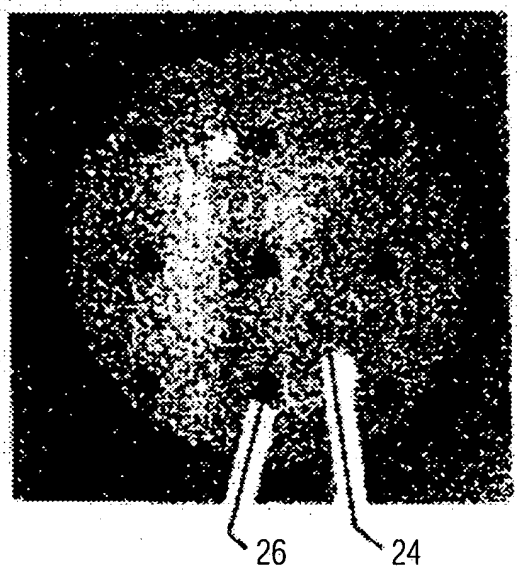


FIG. 2D

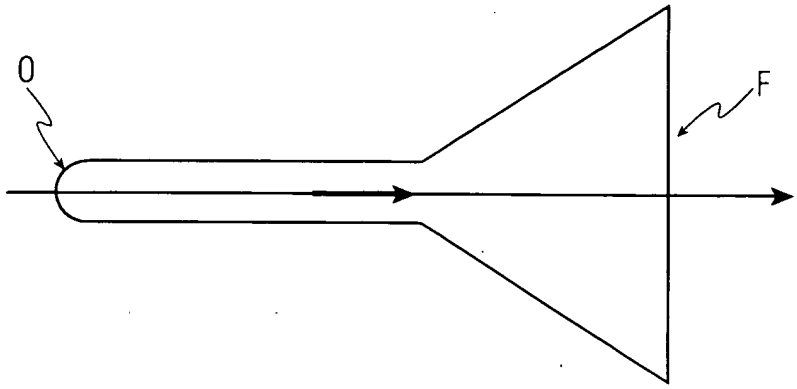


FIG. 3a

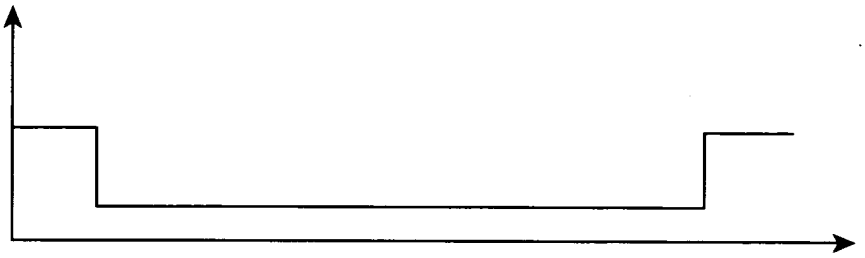


FIG. 3b

FIG. 3c

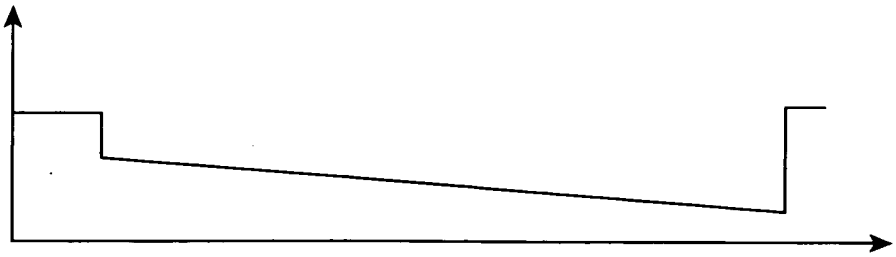


FIG. 3d

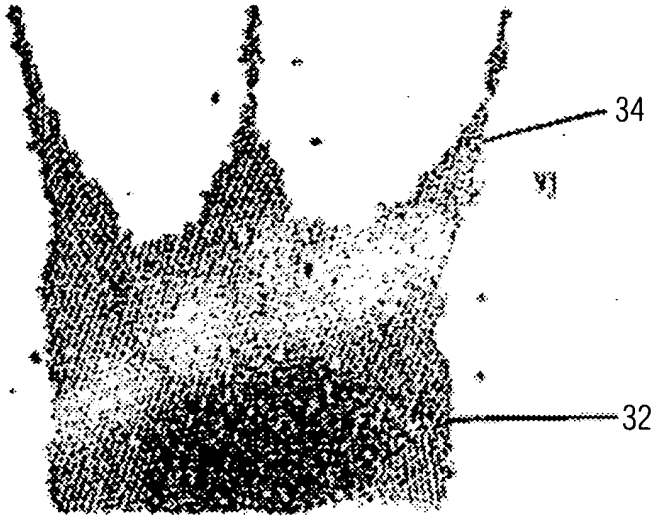


FIG. 3c

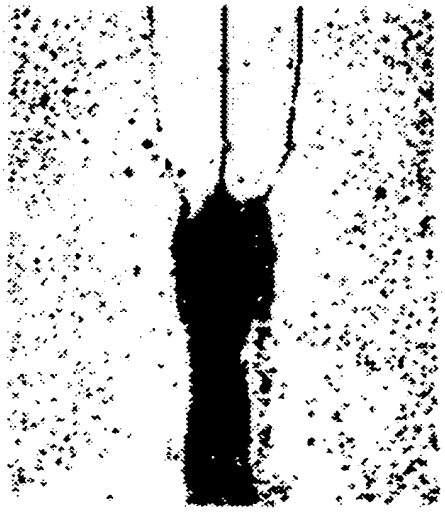


FIG. 3d

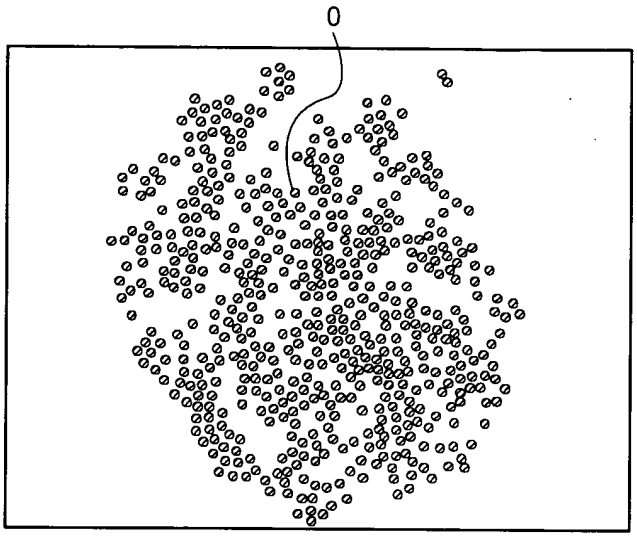


FIG. 4A

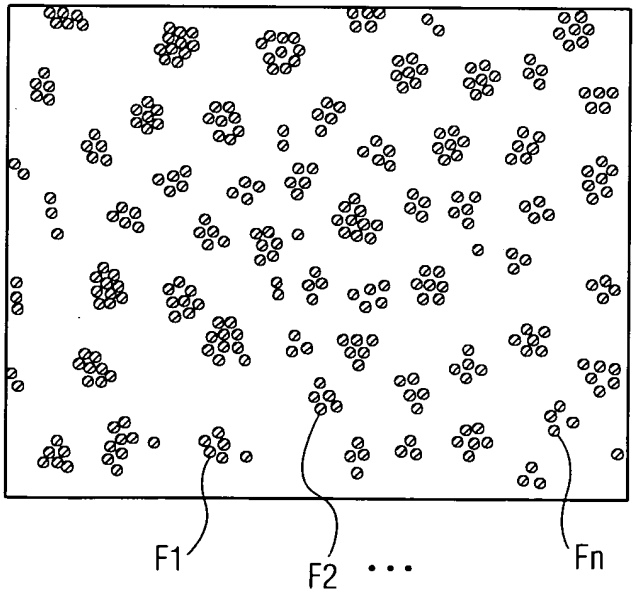


FIG. 4B

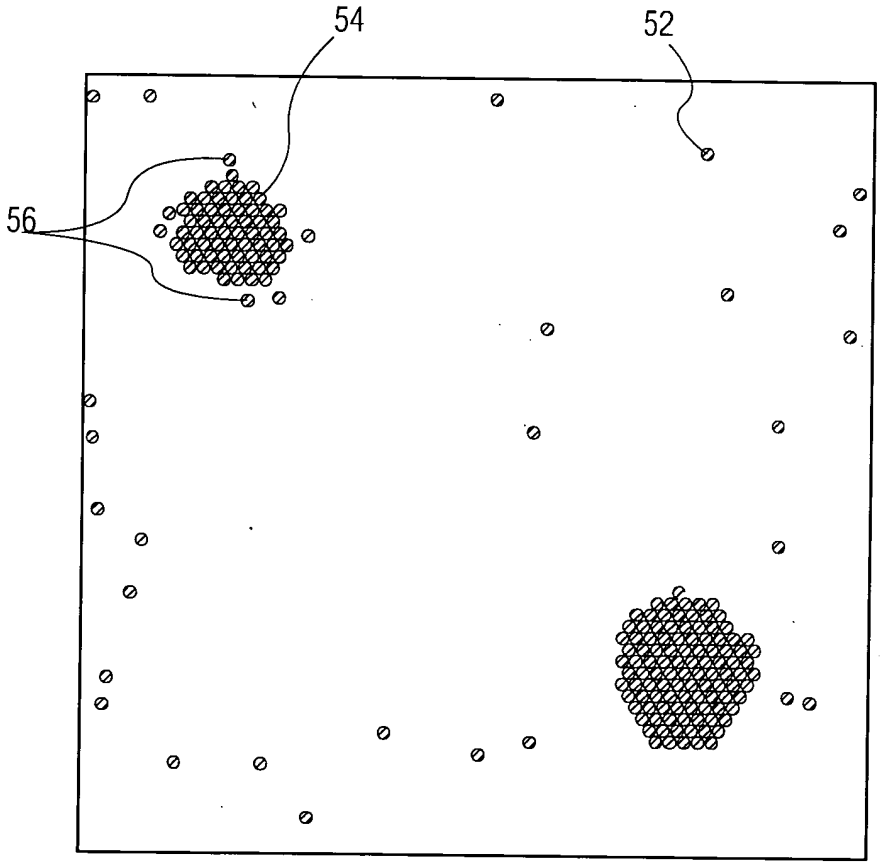


FIG. 5

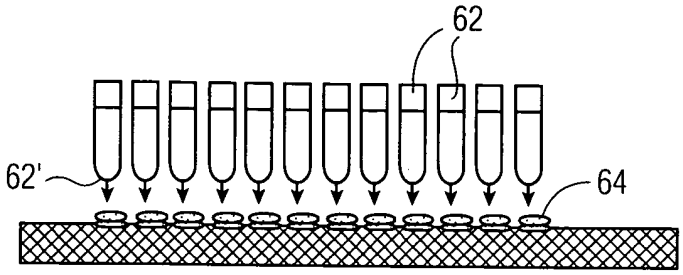


FIG. 6a

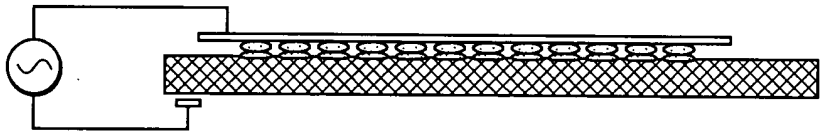


FIG. 6b

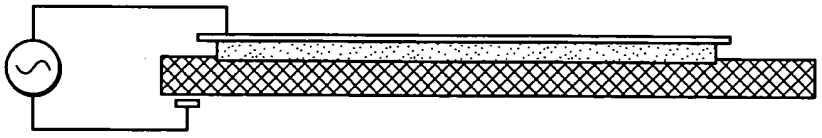


FIG. 6c

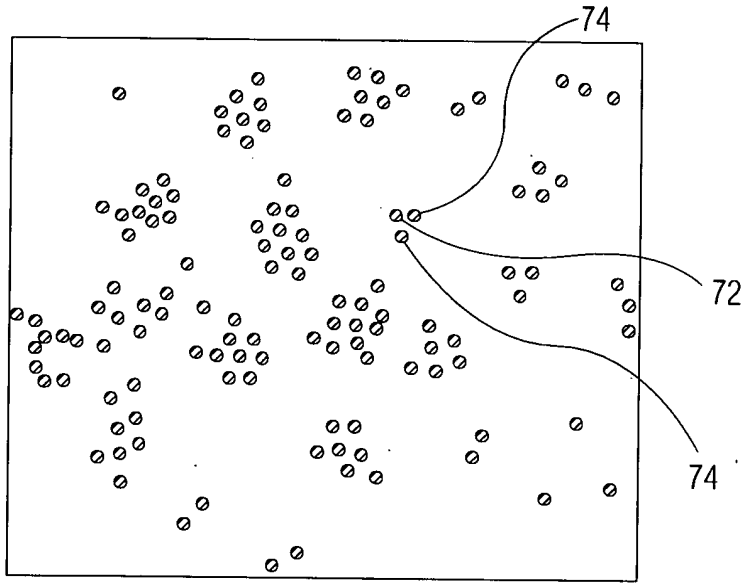


FIG. 7

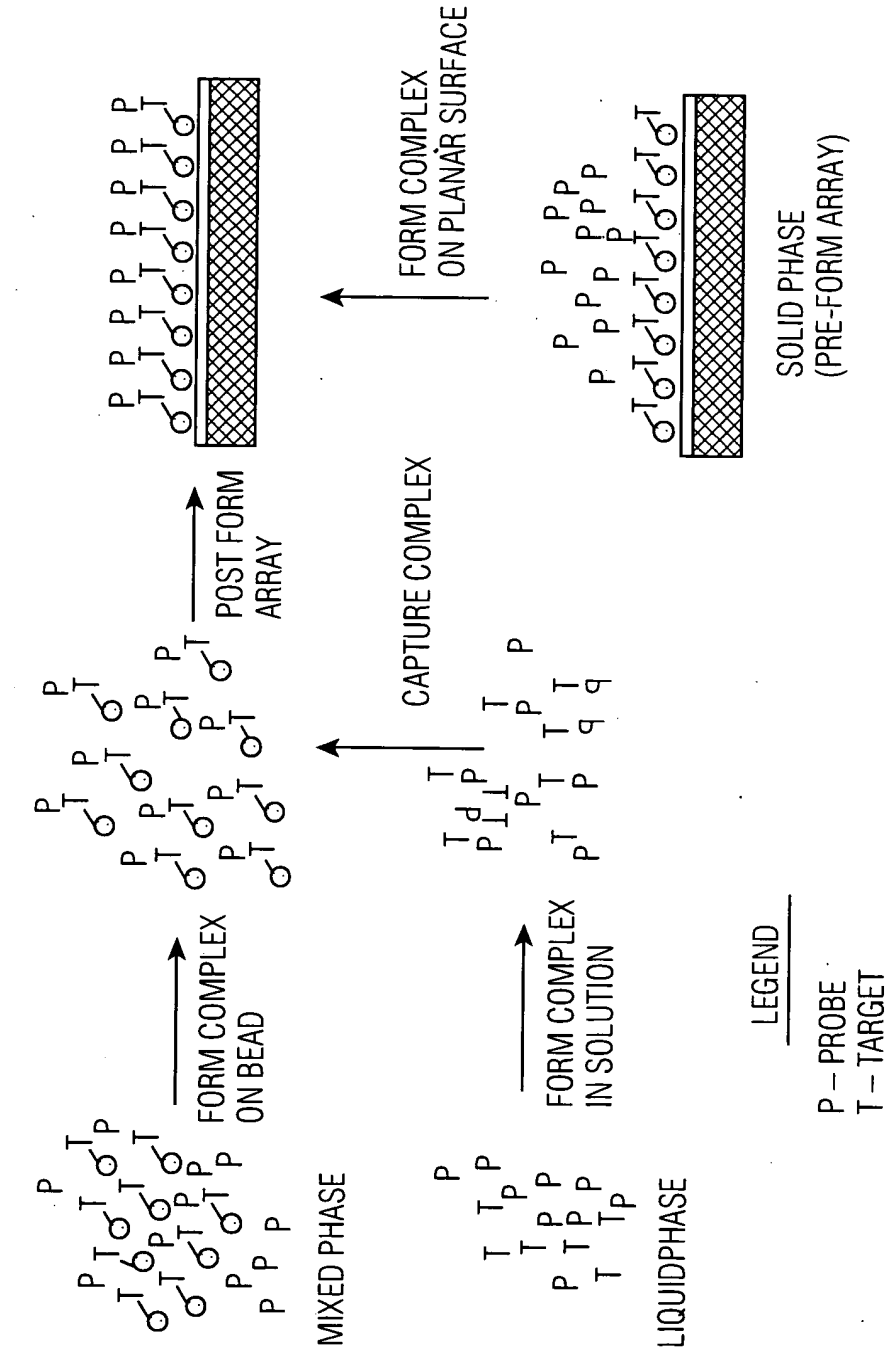

MIXED PHASE
FORM COMPLEX ON BEAD
CAPTURE COMPLEX
POST FORM ARRAY
FORM COMPLEX ON PLANAR SURFACE
LIQUIDPHASE
FORM COMPLEX IN SOLUTION
SOLID PHASE (PRE-FORM ARRAY)
LEGEND
P – PROBE
T – TARGET
PT – P-T COMPLEX

FIG. 8

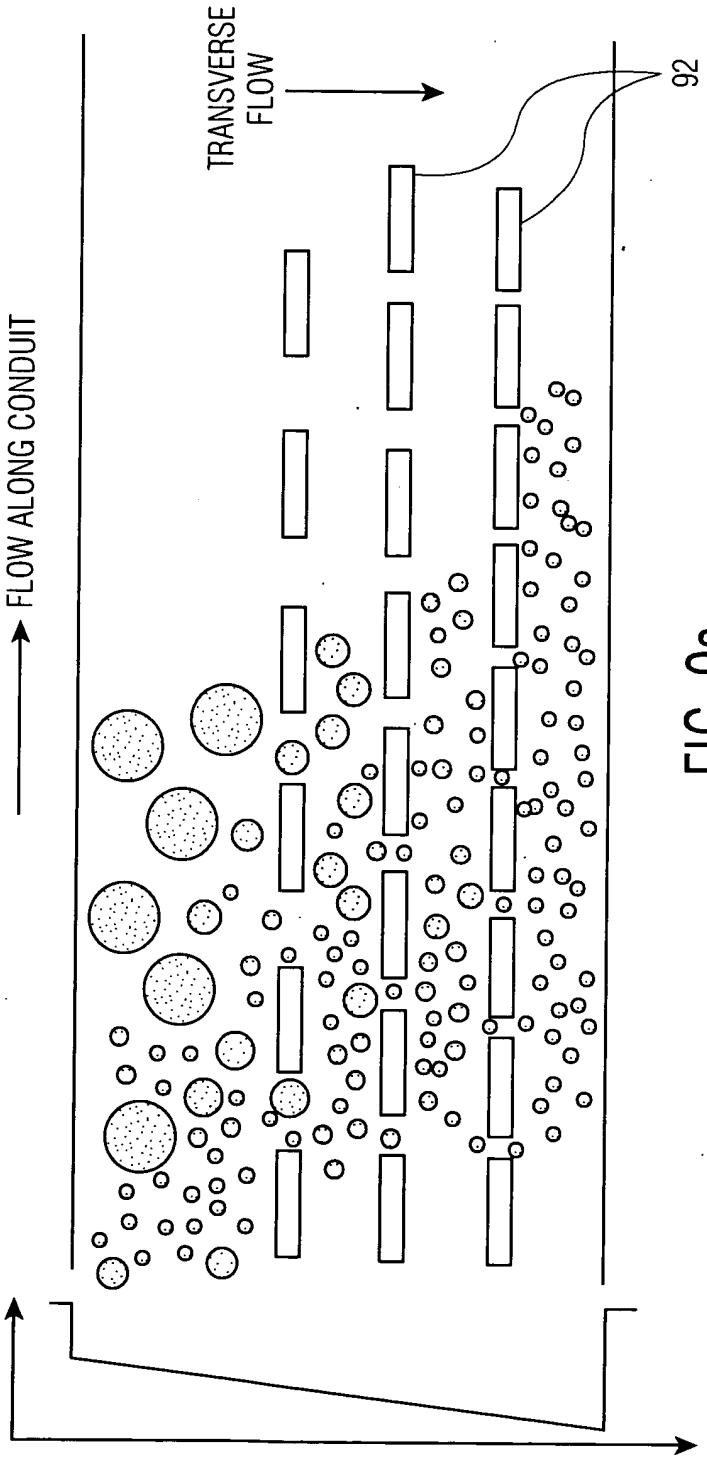


FIG. 9a

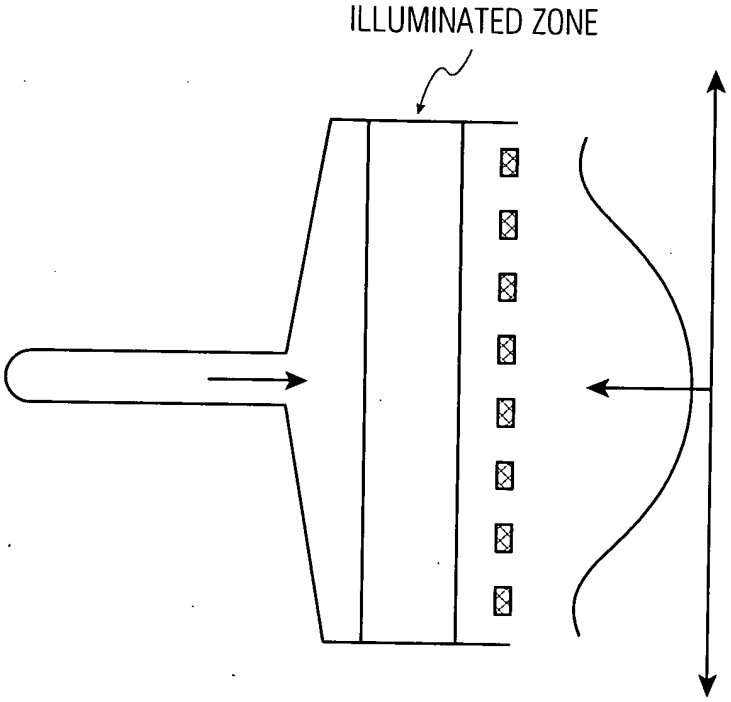


FIG. 9b

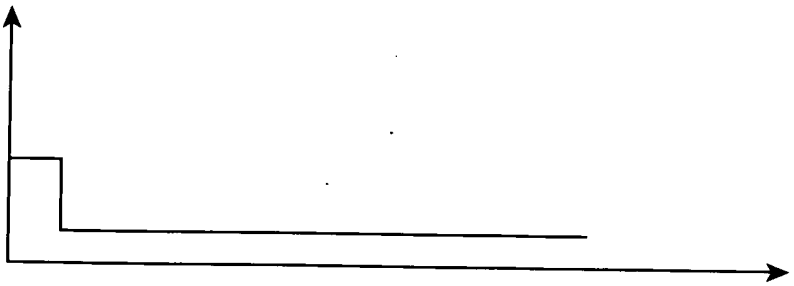


FIG. 9c

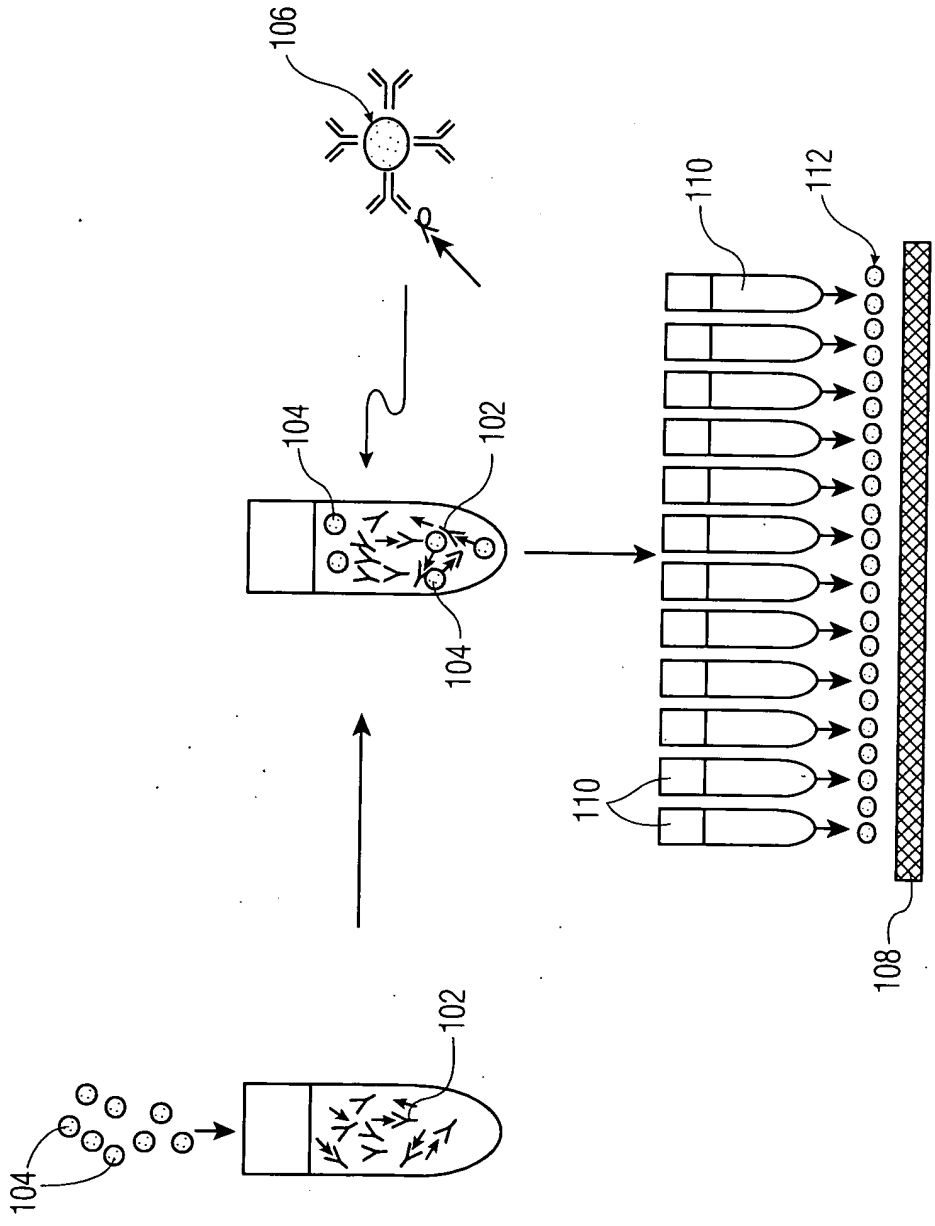


FIG. 10

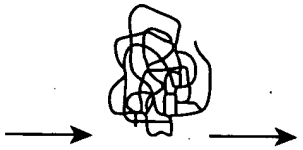


FIG. 11a

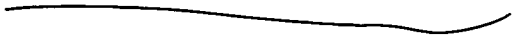


FIG. 11b

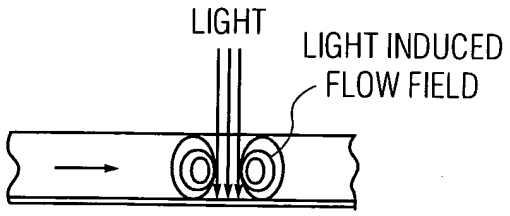


FIG. 11c

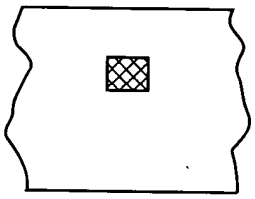


FIG. 11d

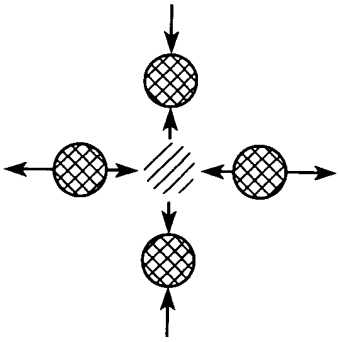


FIG. 11e

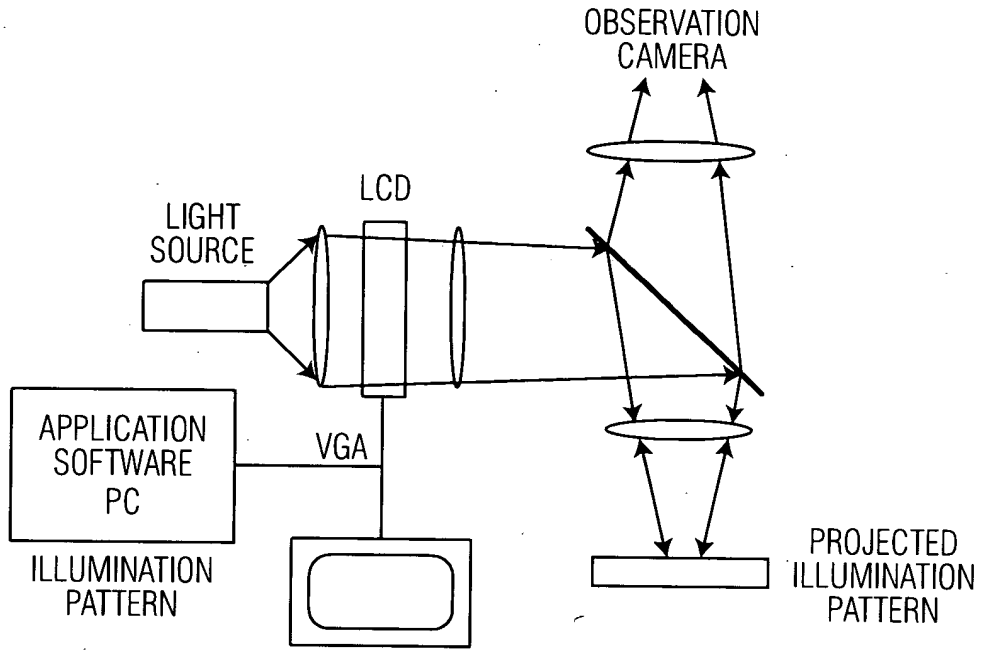


FIG. 12
PRIOR ART

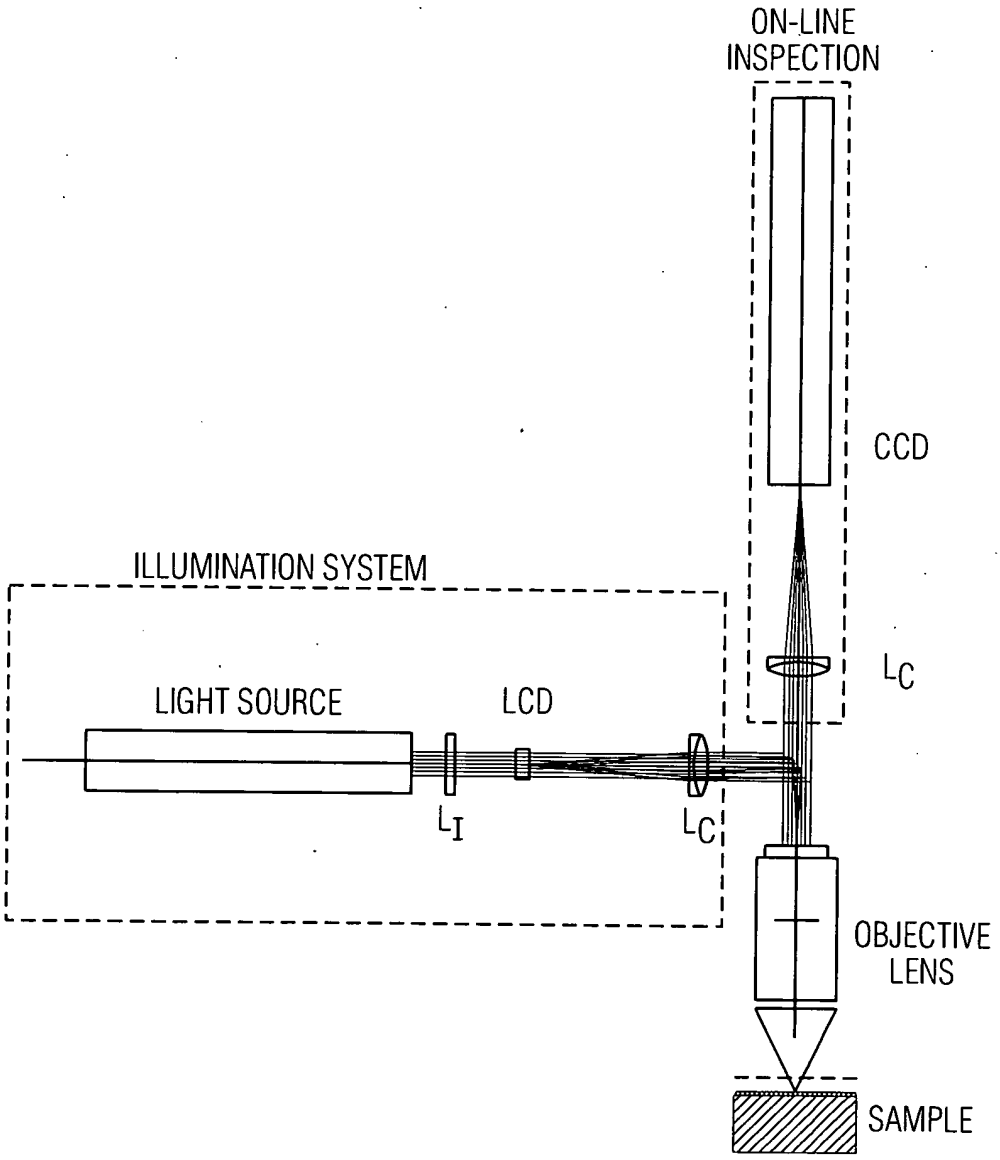

ON-LINE
INSPECTION
CCD
L_C
ILLUMINATION SYSTEM
LIGHT SOURCE
LCD
L_I
L_C
OBJECTIVE
LENS
SAMPLE

FIG. 13

FIG. 14a

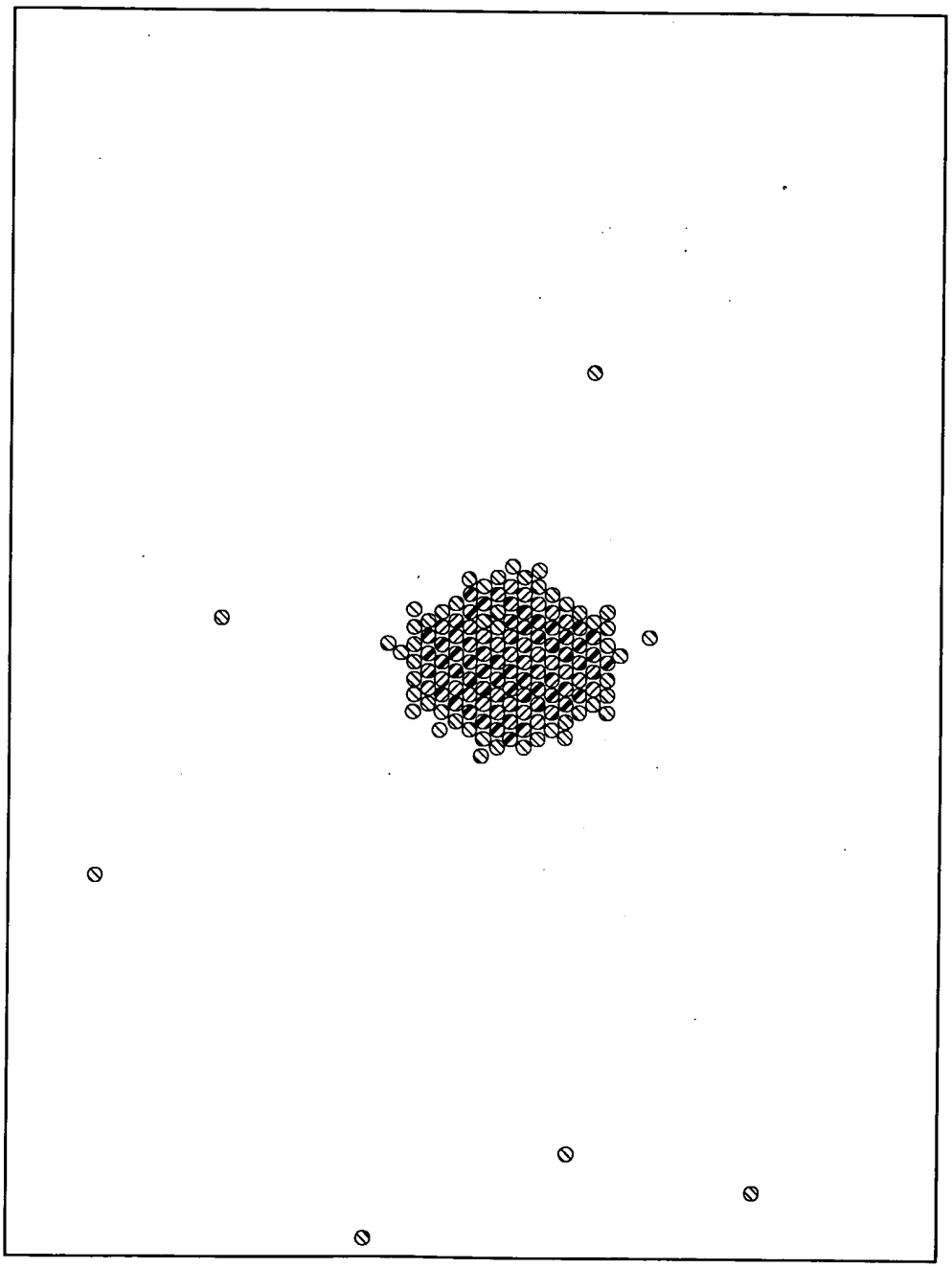


FIG. 14b

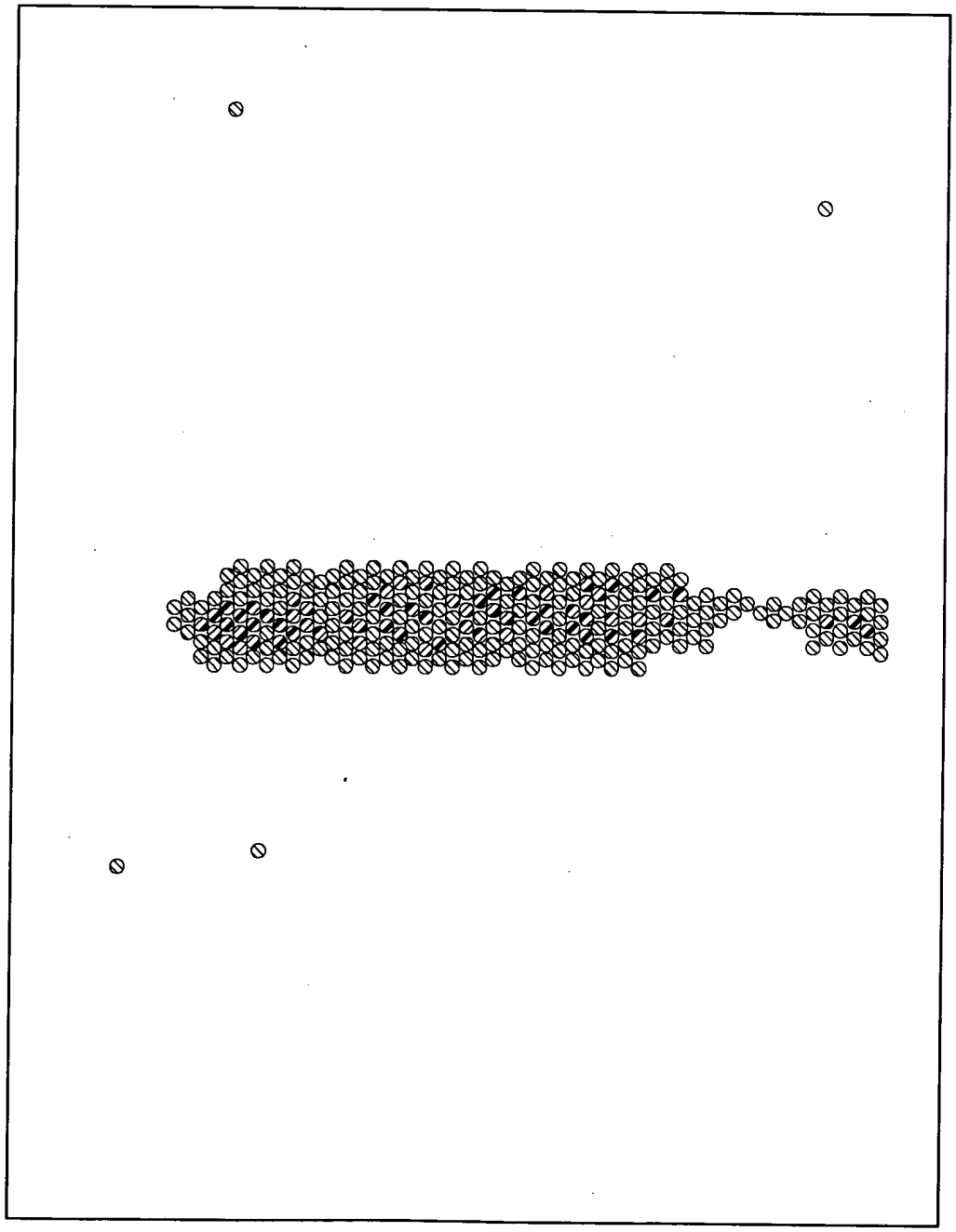


FIG. 14c

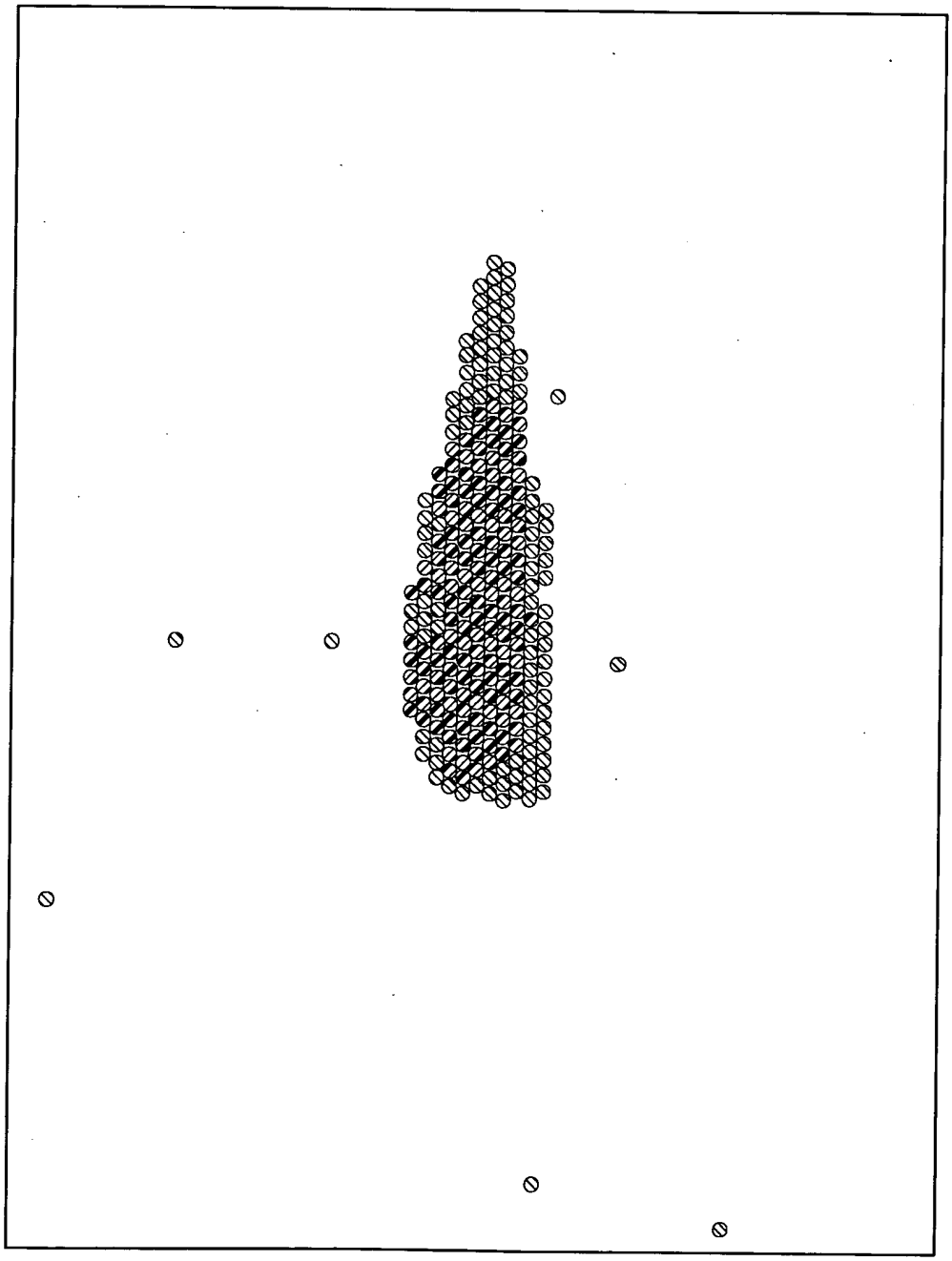
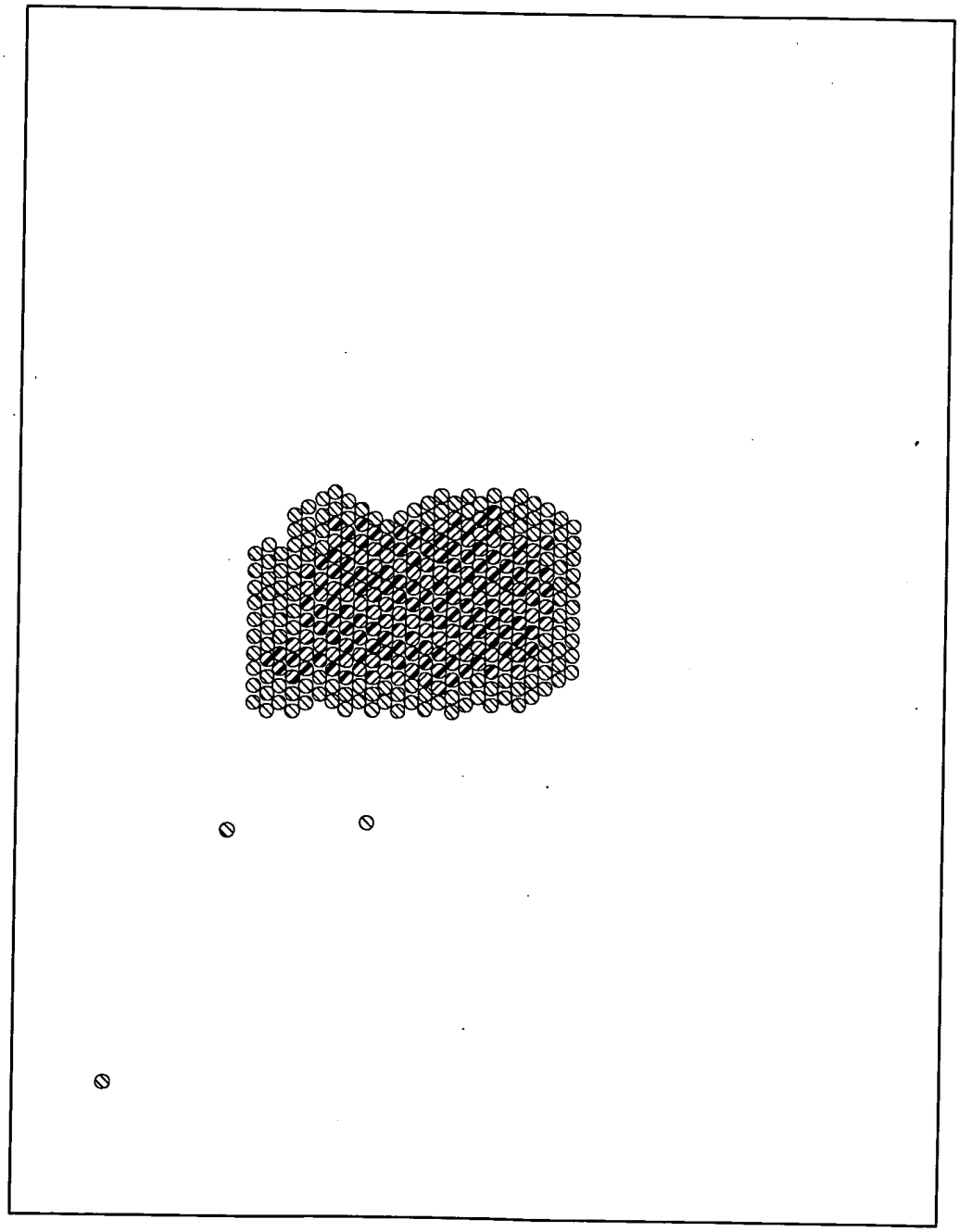


FIG. 14d



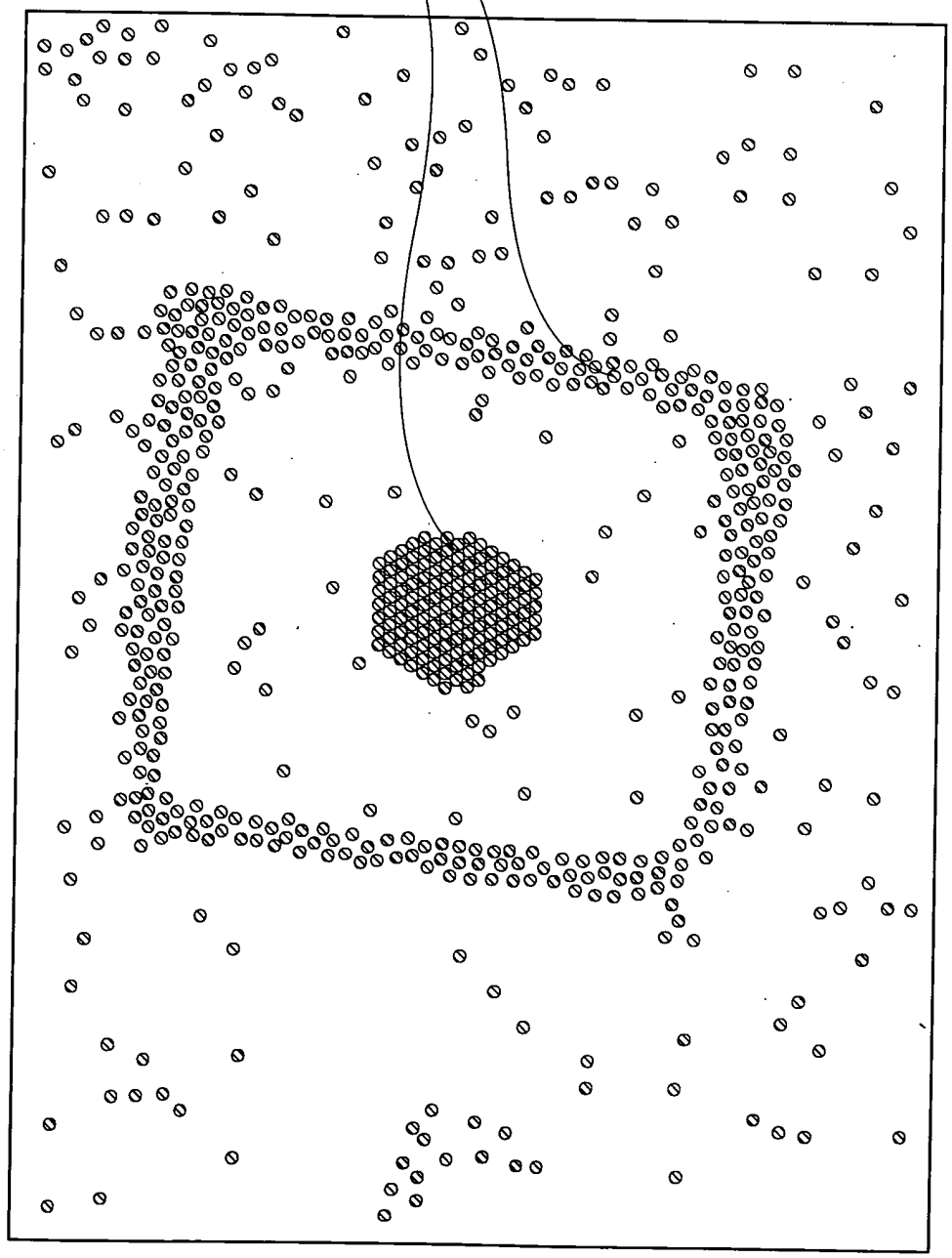


FIG. 15a

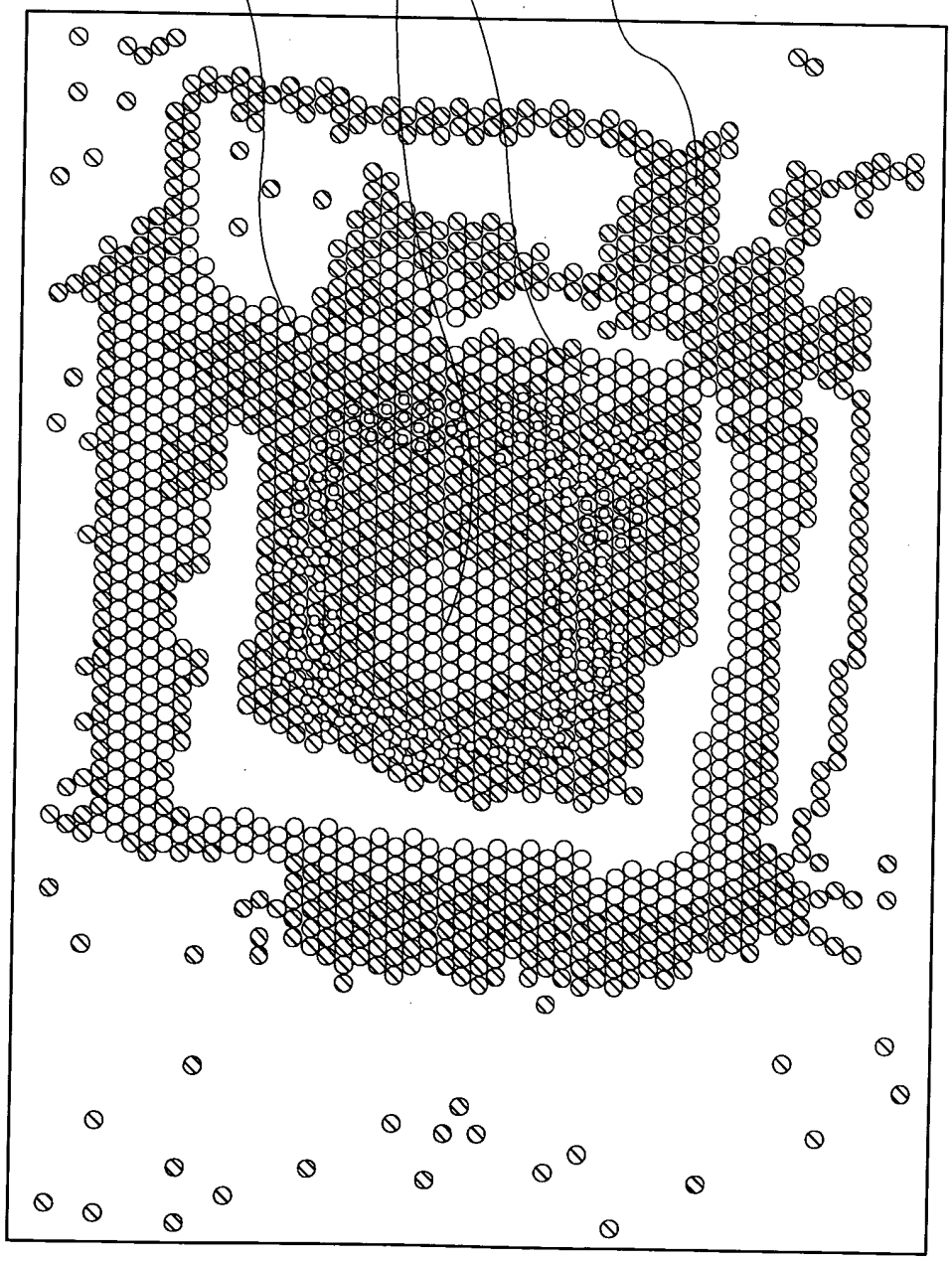
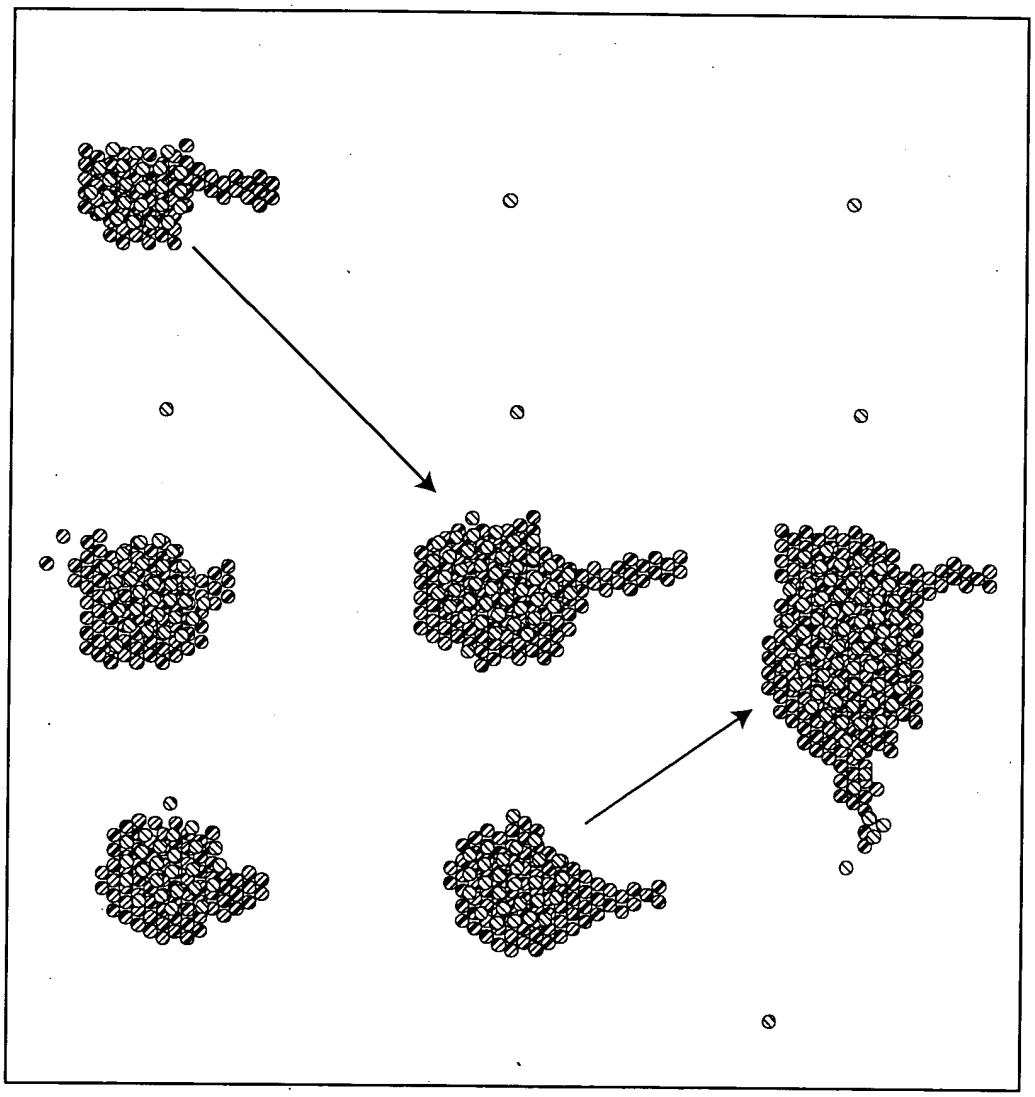


FIG. 15b

FIG. 16



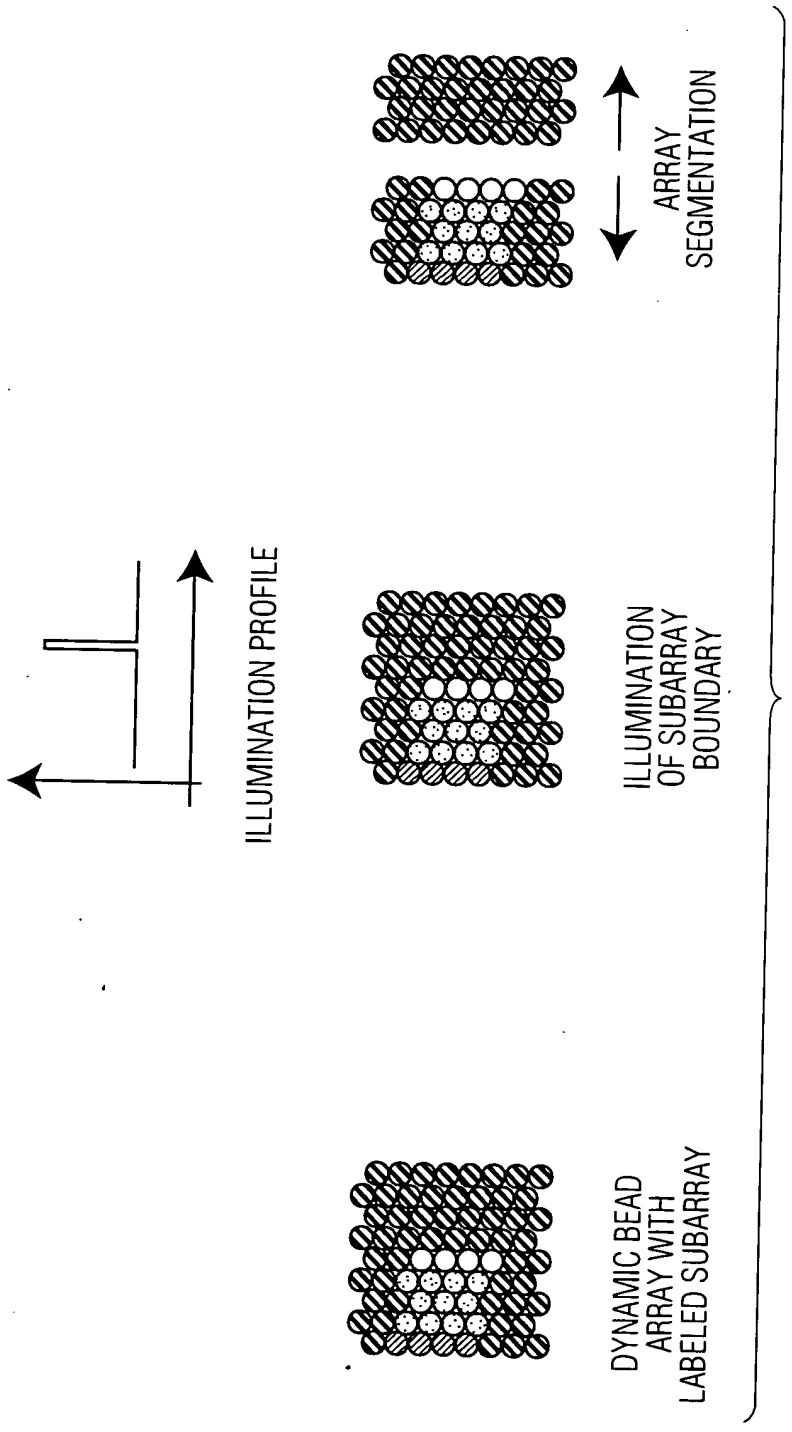

ILLUMINATION PROFILE
DYNAMIC BEAD ARRAY WITH LABELED SUBARRAY
ILLUMINATION OF SUBARRAY BOUNDARY
ARRAY SEGMENTATION

FIG. 17

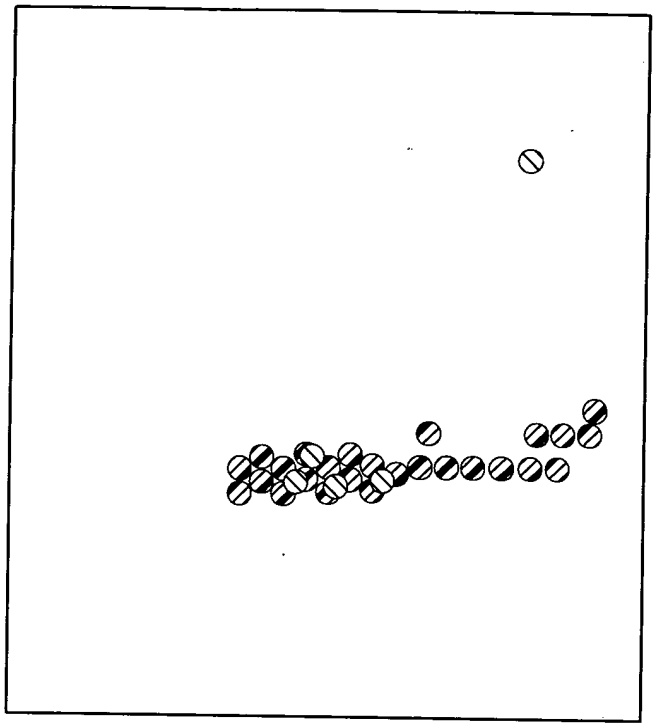


FIG. 18b

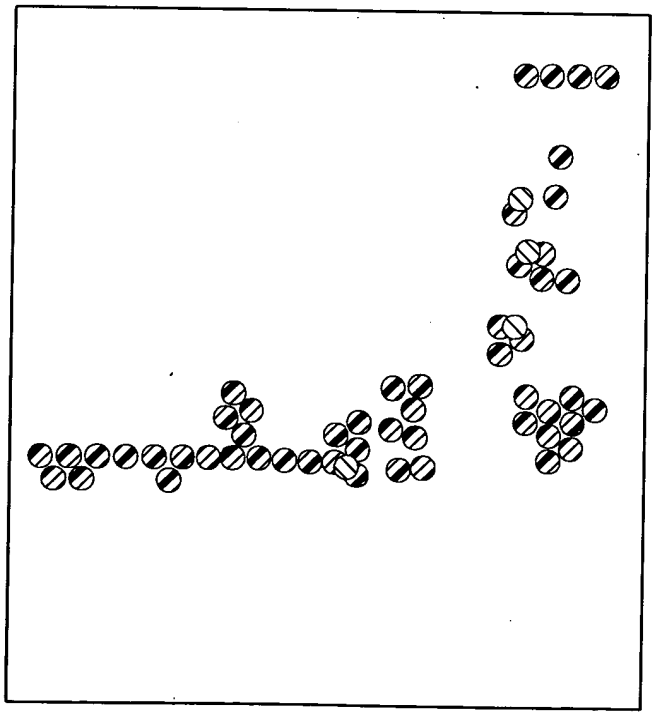
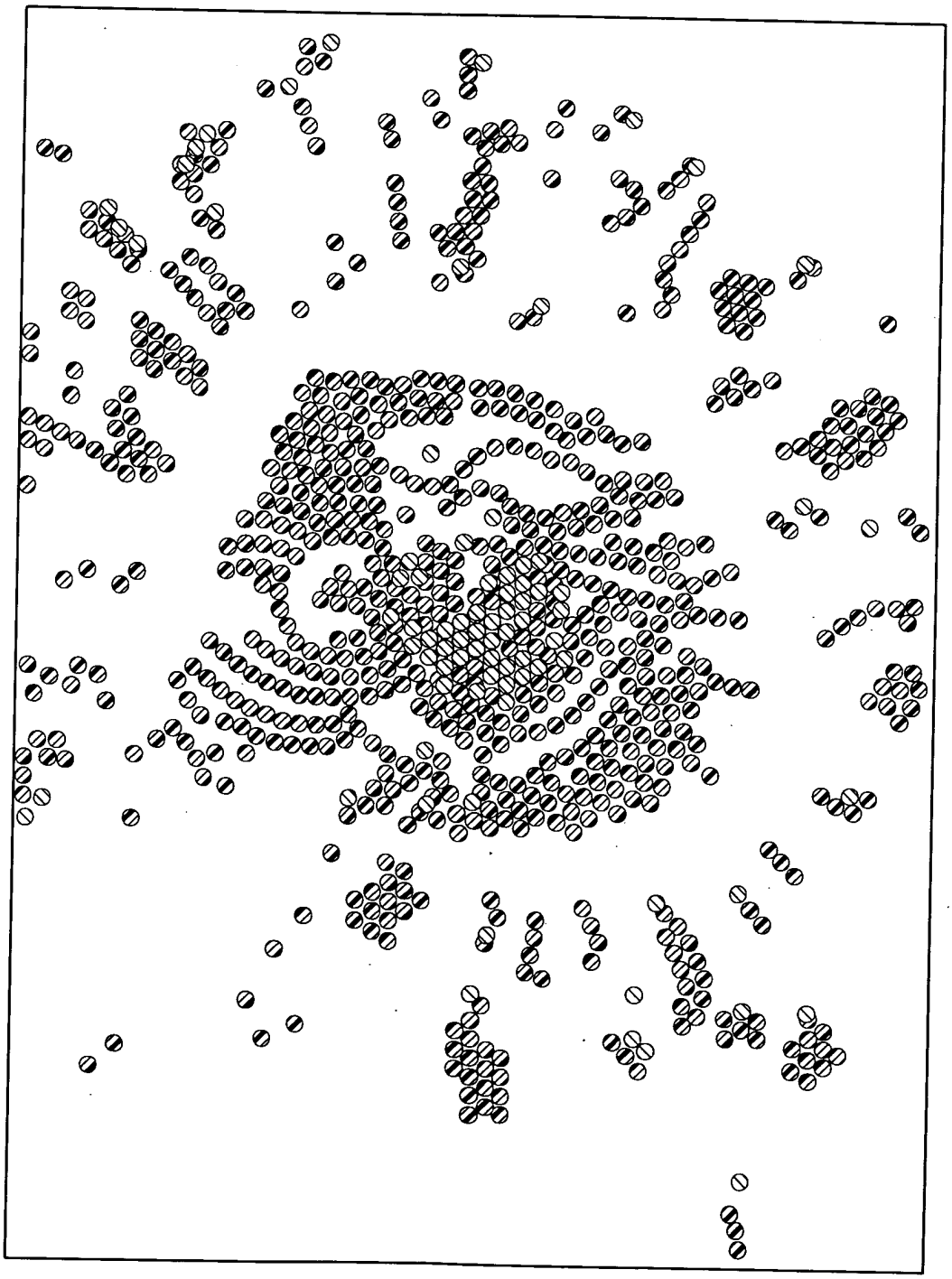


FIG. 18a

FIG. 19



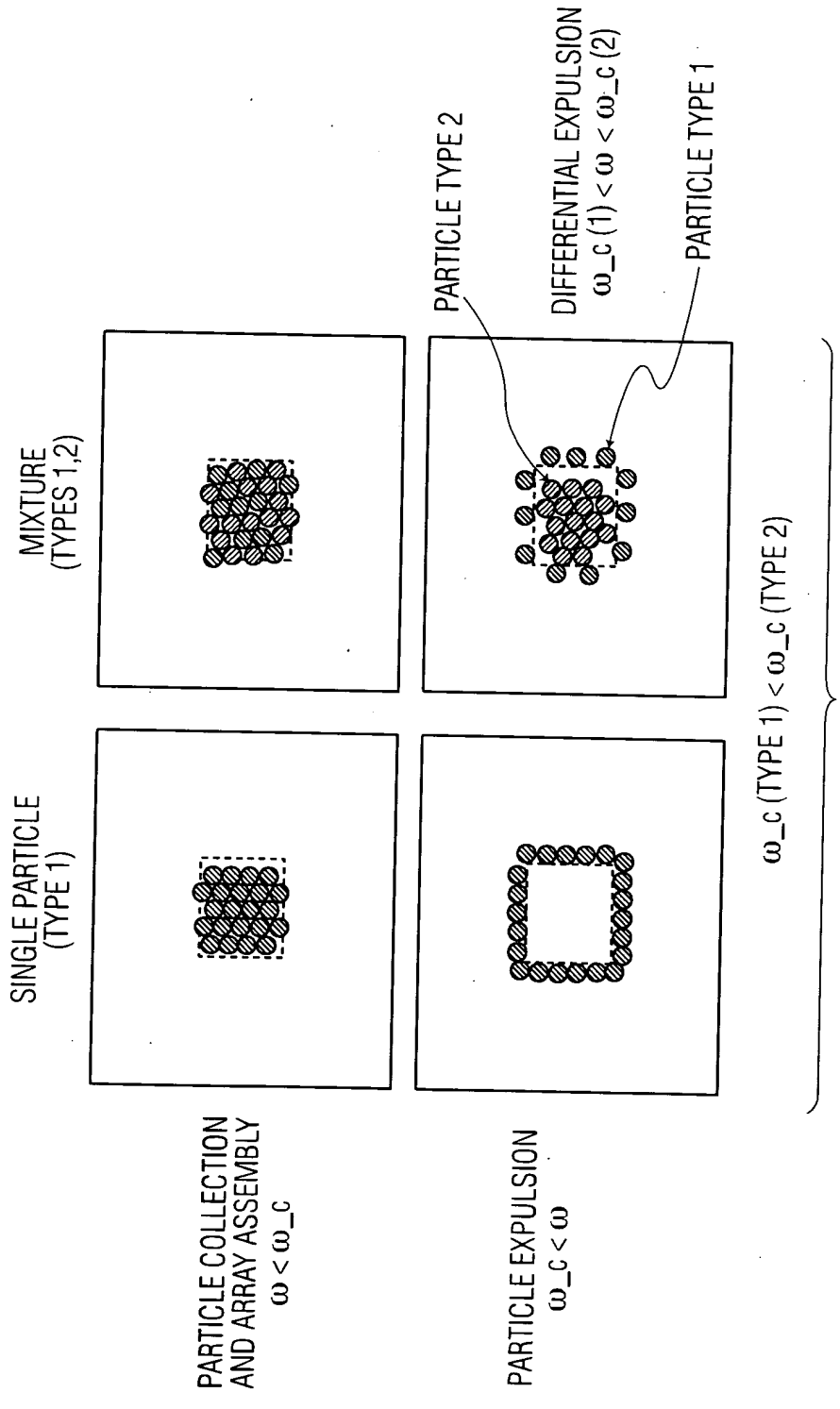

SINGLE PARTICLE
(TYPE 1)
MIXTURE
(TYPES 1,2)
PARTICLE COLLECTION
AND ARRAY ASSEMBLY
ω < ω_c
PARTICLE EXPULSION
ω_c < ω
PARTICLE TYPE 2
DIFFERENTIAL EXPULSION
ω_c (1) < ω < ω_c (2)
PARTICLE TYPE 1
ω_c (TYPE 1) < ω_c (TYPE 2)

FIG. 20a

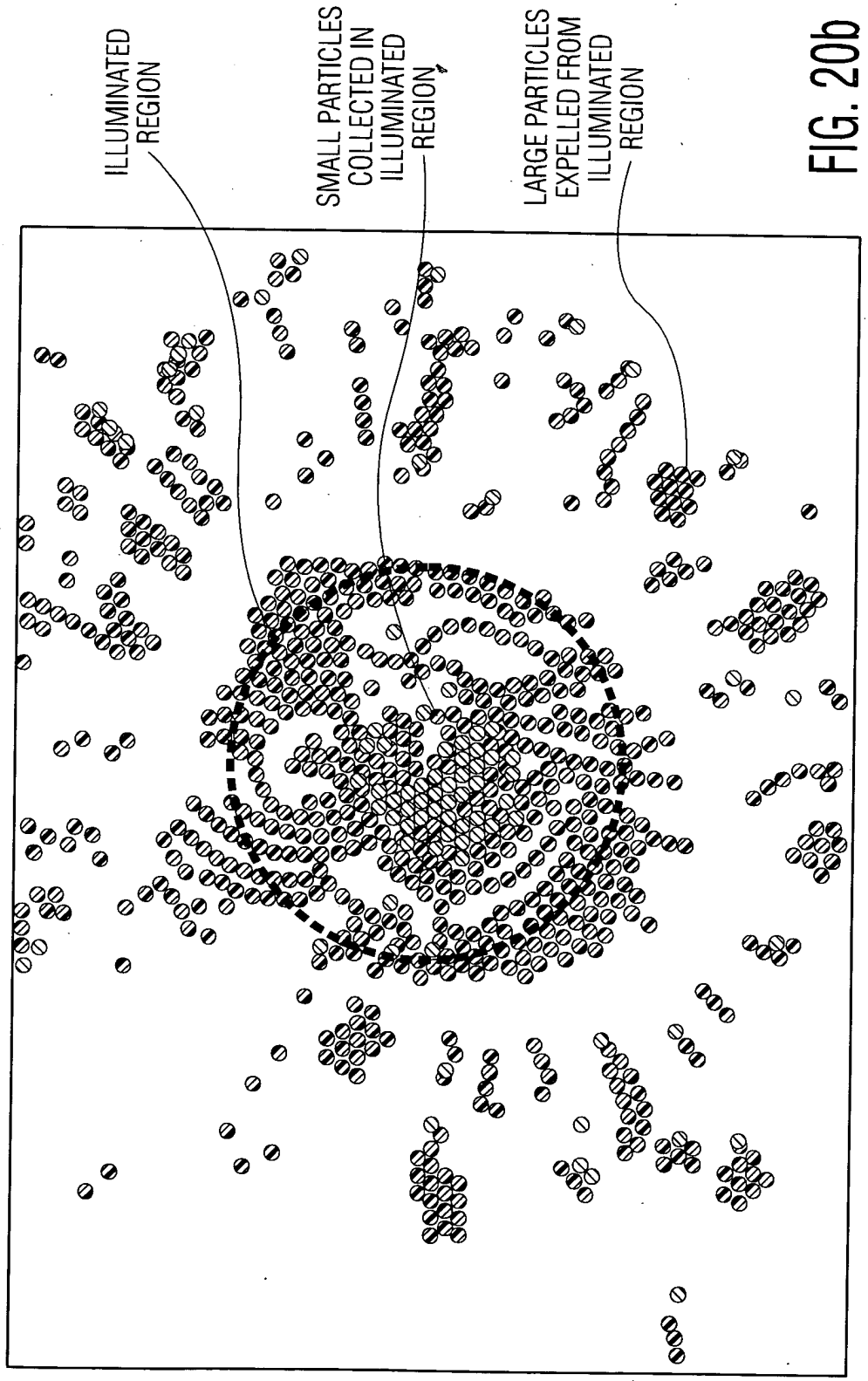

ILLUMINATED REGION
SMALL PARTICLES COLLECTED IN ILLUMINATED REGION
LARGE PARTICLES EXPELLED FROM ILLUMINATED REGION

FIG. 20b

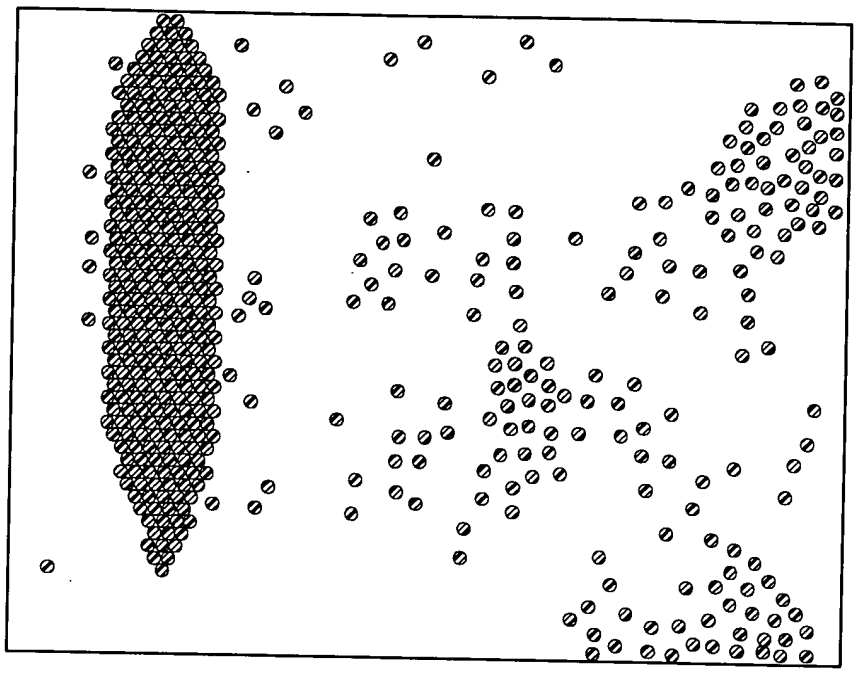


FIG. 21a

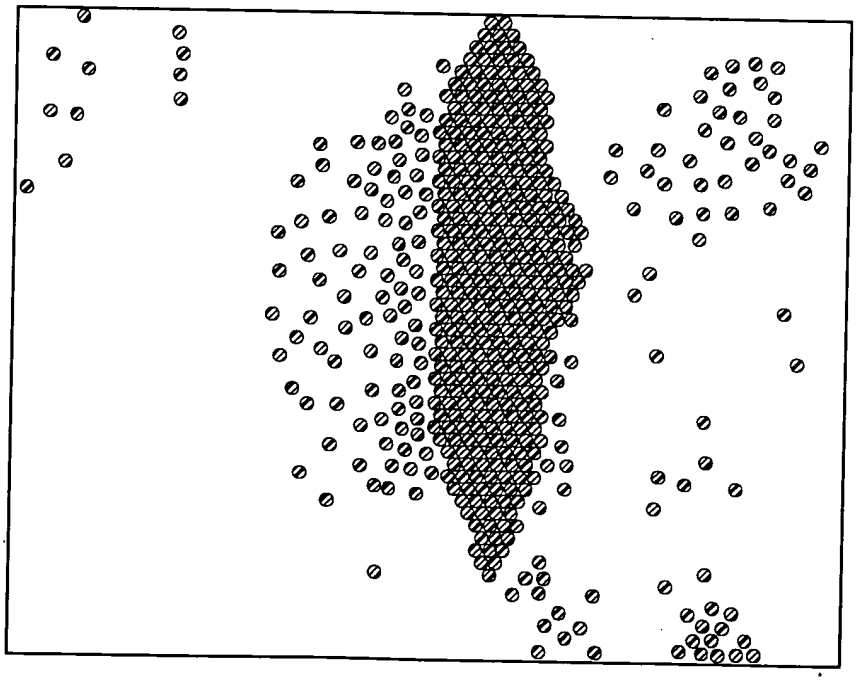


FIG. 21b

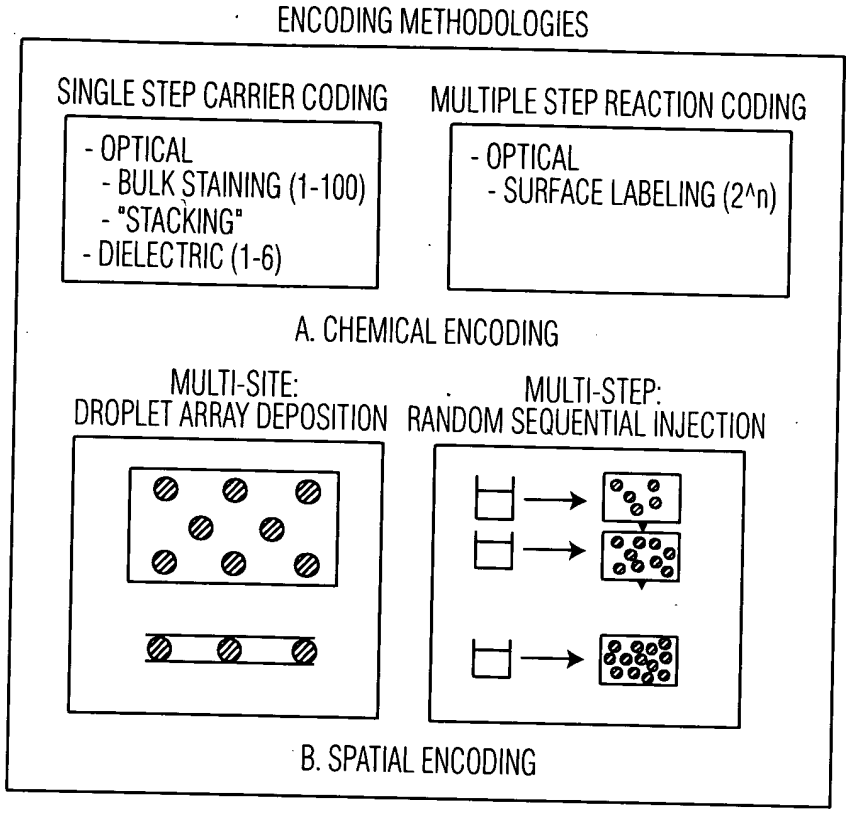


FIG. 22a

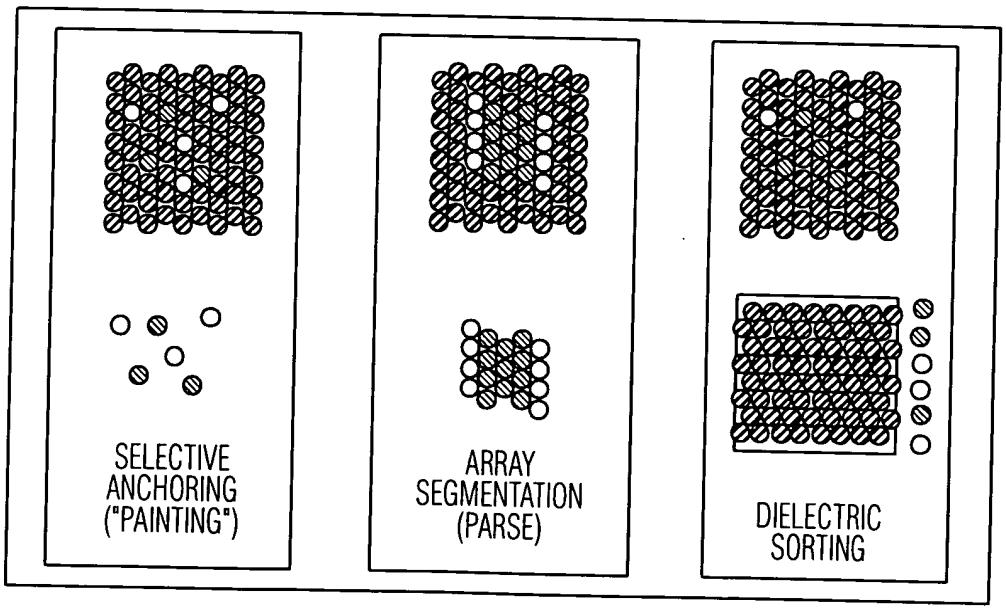


FIG. 22b

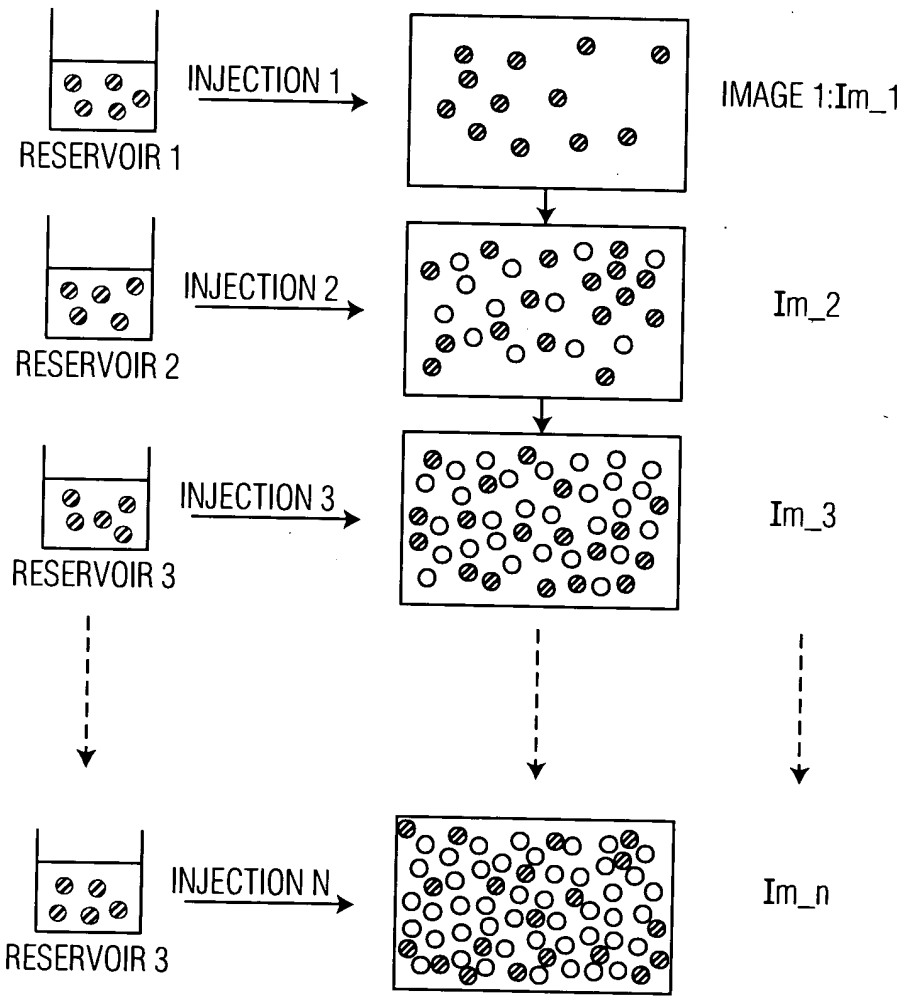

INJECTION 1
RESERVOIR 1
IMAGE 1:Im_1
INJECTION 2
RESERVOIR 2
Im_2
INJECTION 3
RESERVOIR 3
Im_3
INJECTION N
RESERVOIR 3
Im_n

FIG. 23

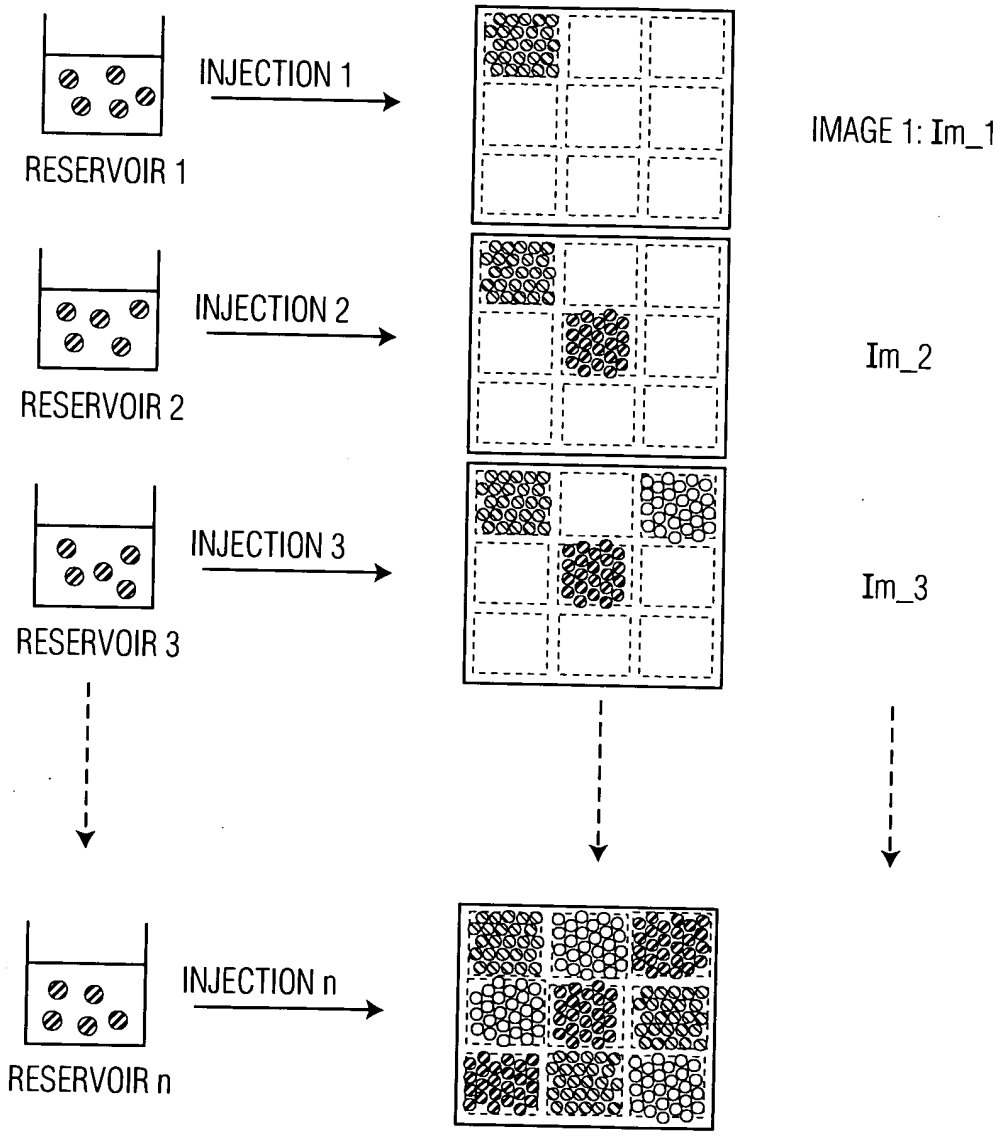

INJECTION 1
RESERVOIR 1
IMAGE 1: Im_1
INJECTION 2
RESERVOIR 2
Im_2
INJECTION 3
RESERVOIR 3
Im_3
INJECTION n
RESERVOIR n

FIG. 24

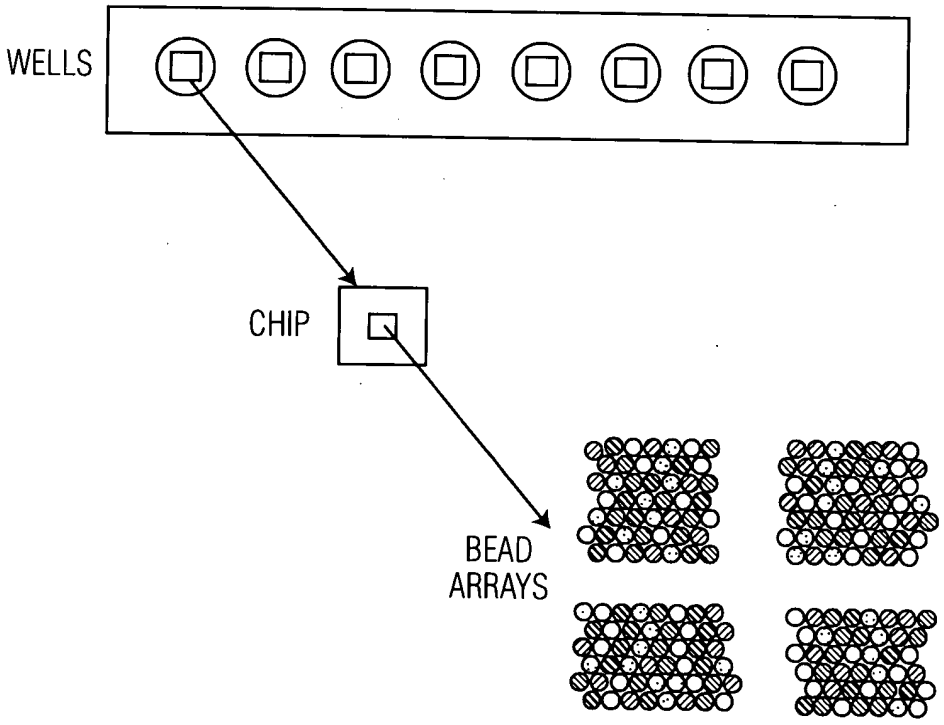


FIG. 25a

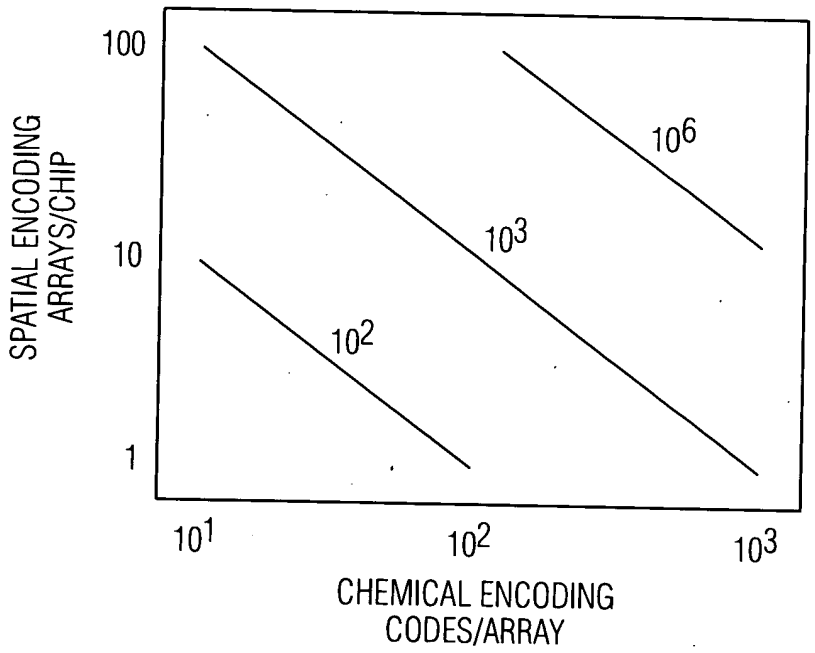

100
10
1
SPATIAL ENCODING
ARRAYS/CHIP
10^6
10^3
10^2
10^1
10^2
10^3
CHEMICAL ENCODING
CODES/ARRAY

FIG. 25b

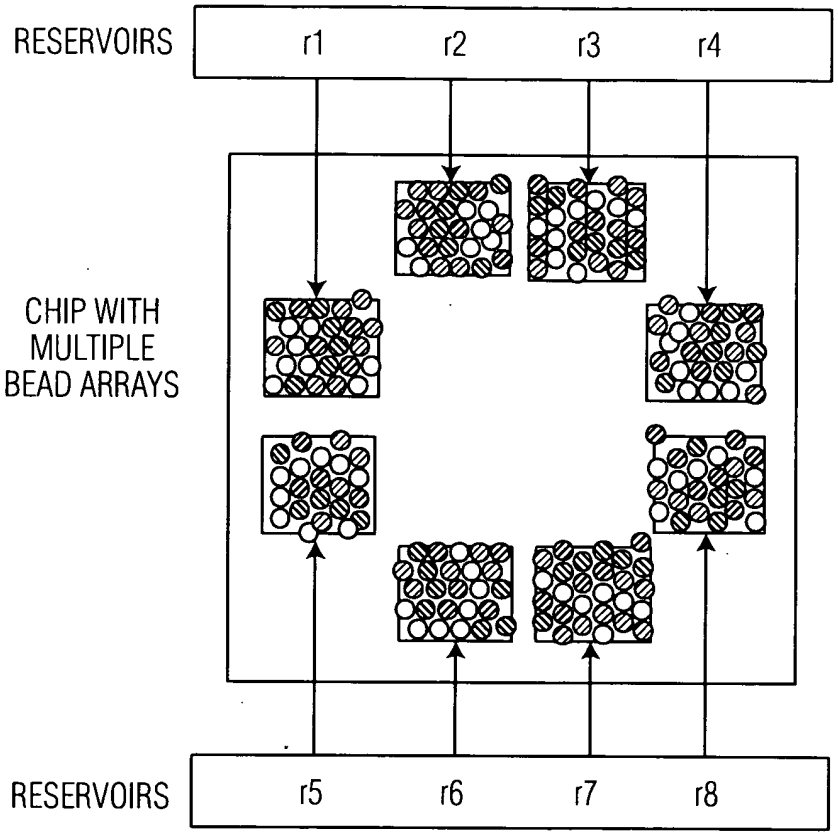

RESERVOIRS
r1
r2
r3
r4
CHIP WITH MULTIPLE BEAD ARRAYS
RESERVOIRS
r5
r6
r7
r8

FIG. 25c

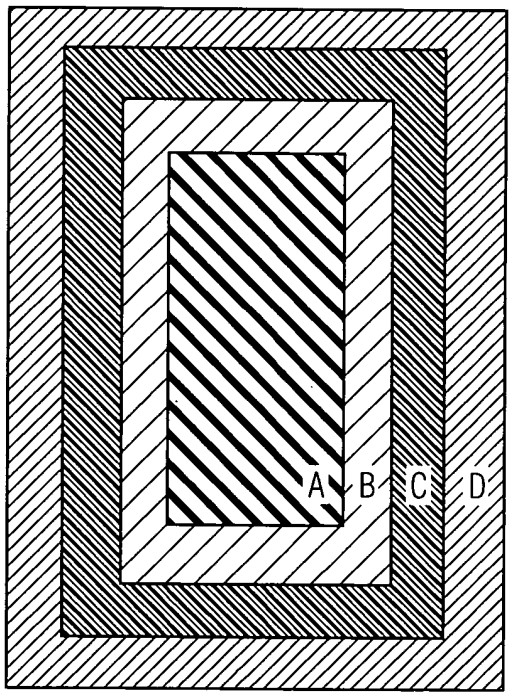


FIG. 26a

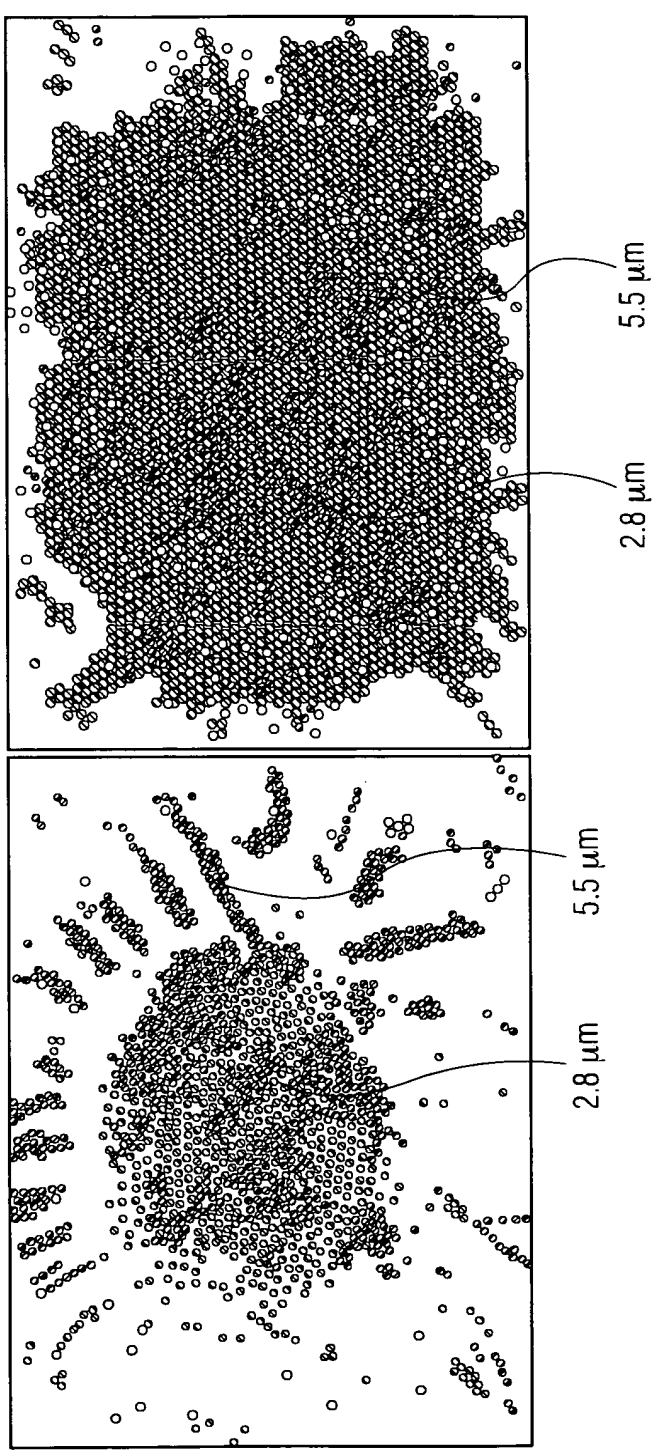
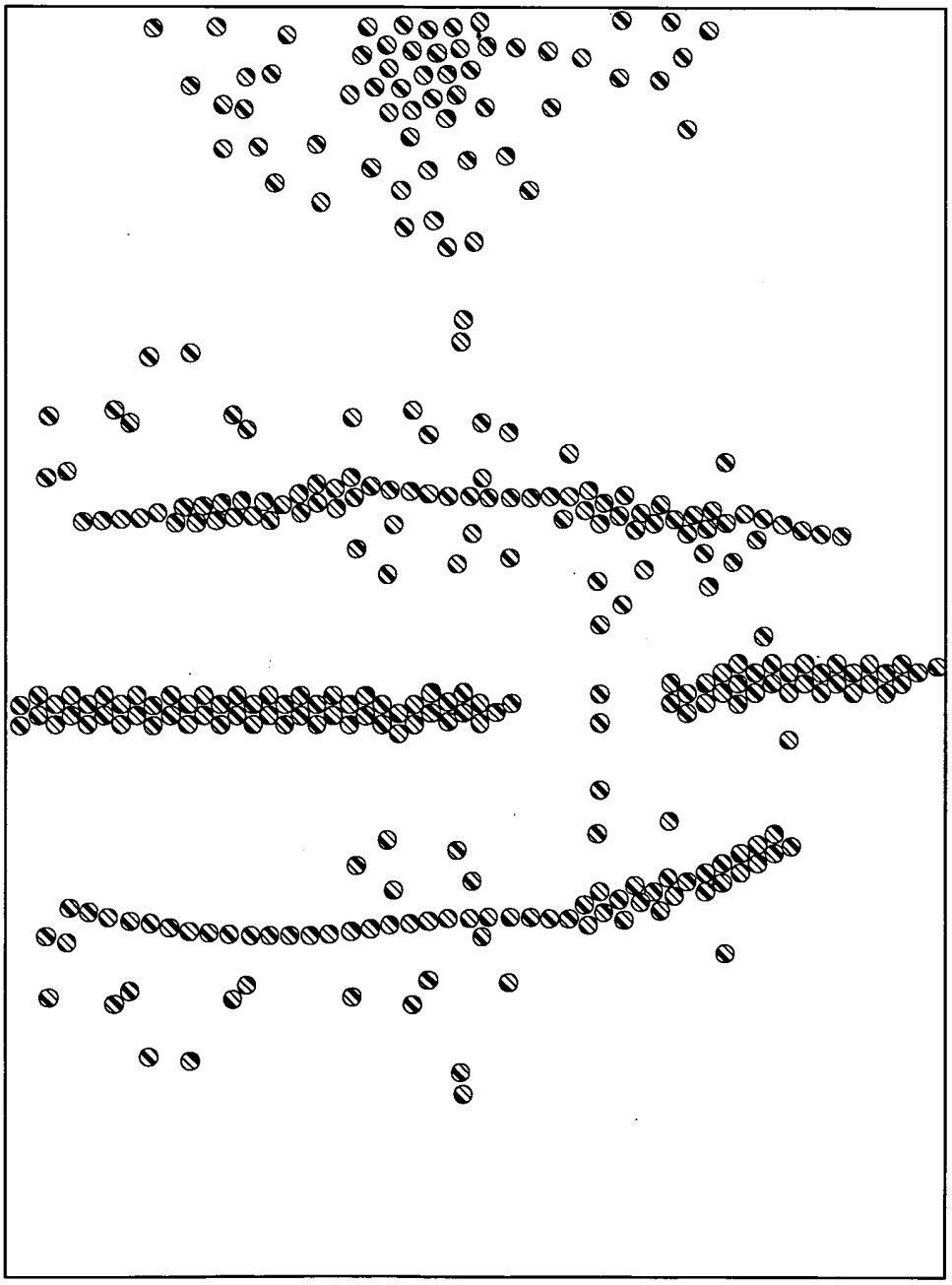


FIG. 26b

FIG. 27



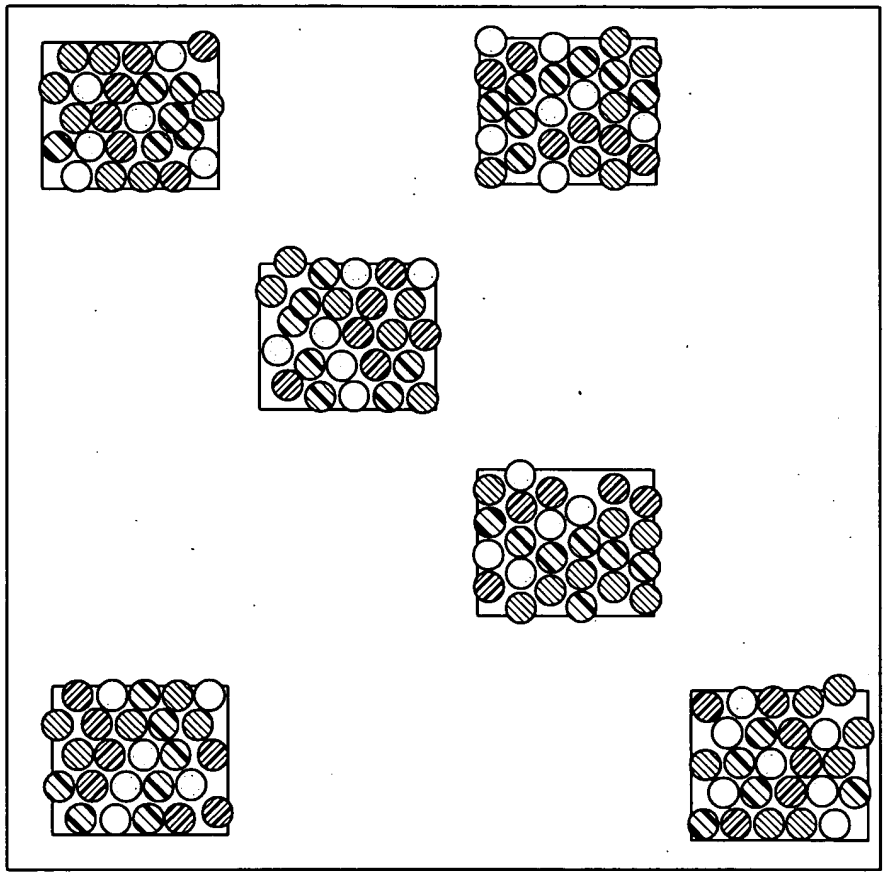


FIG. 28

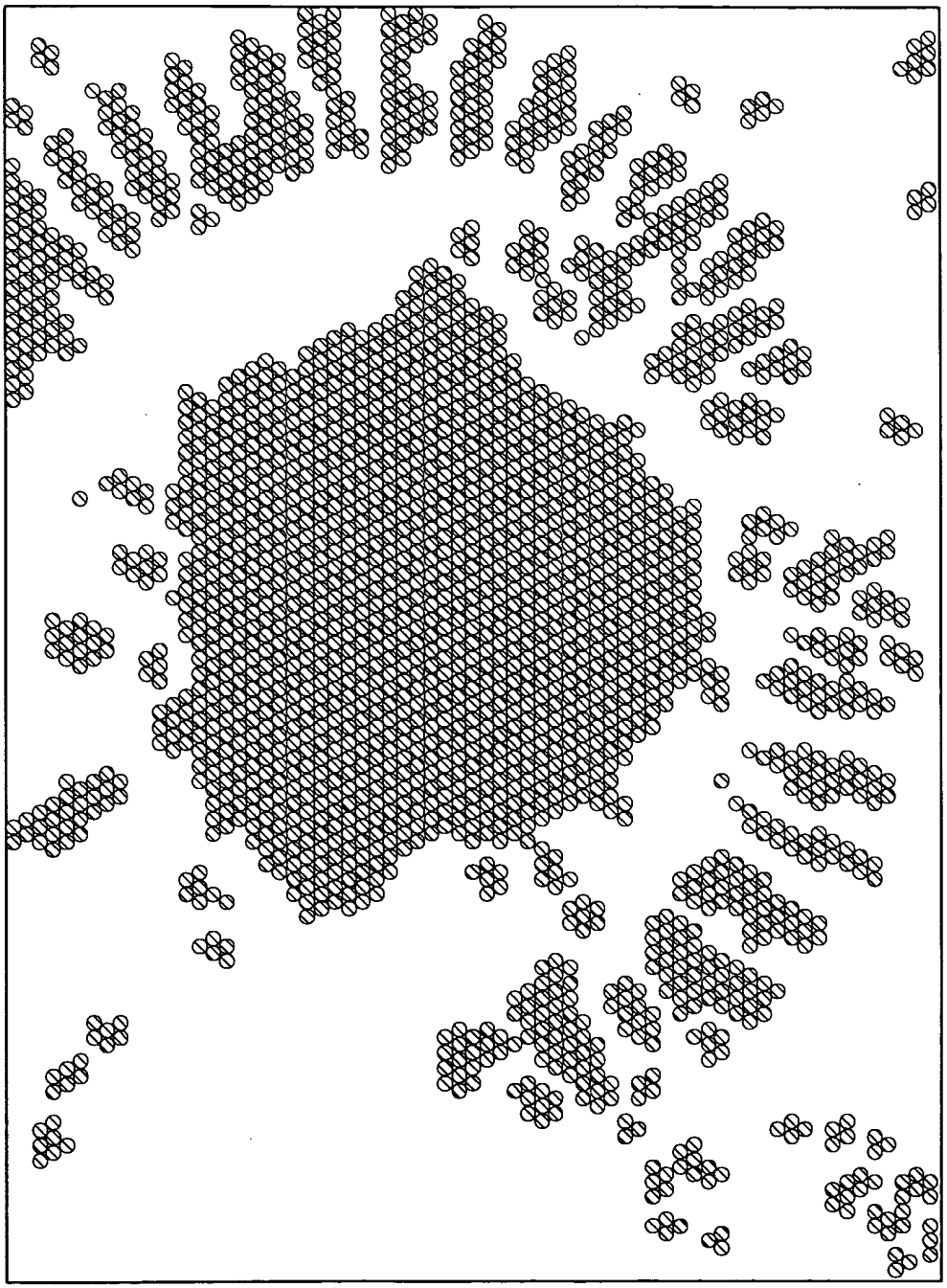



FIG. 29